

July 1954

house + home

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Hot-weather houses

Is America at last learning to build for the American summer (as we are at last learning to dress for it)?

Here are 28 pp. on how to live outdoors with all the comforts and luxuries of home:

breezeways, sunshades, jalousies, screened gardens, roof umbrellas, stilts and gay colors (p. 98)

Best sellers

What architects and builders can learn about changing public tastes from

the five most popular house plans "Better Homes and Gardens" has published since Jan. '52 (p. 140)

New town

Canada's 17 architect-builder teams are packing profitable ideas into Don Mills, where 15,000 people will soon live near their jobs (p. 146)

Lumber dealer

Clarence Thompson packages more and more components to help the 5- to 25-house builder cut his costs—and so stay in business (p. 128)

Custom design

Out of one big space, Architect A. L. Aydelott carves ten handsome living rooms (including an indoor garden) each for a different purpose (below and p. 134)



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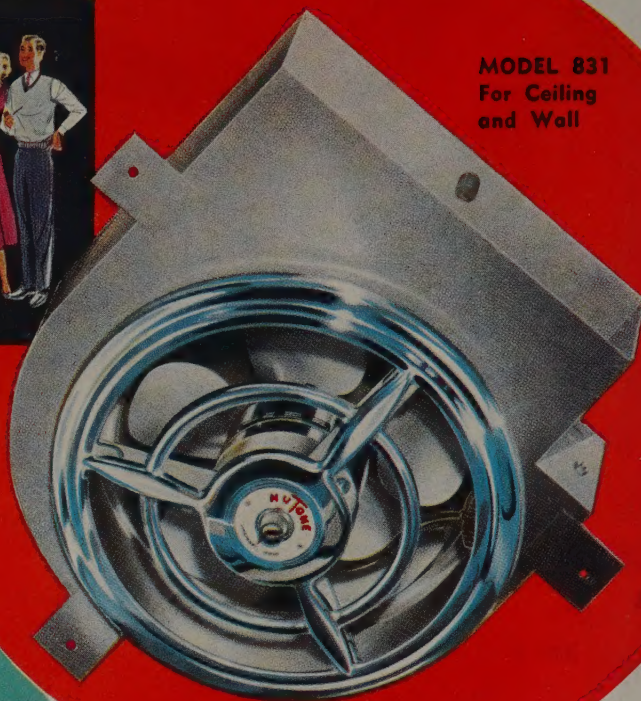
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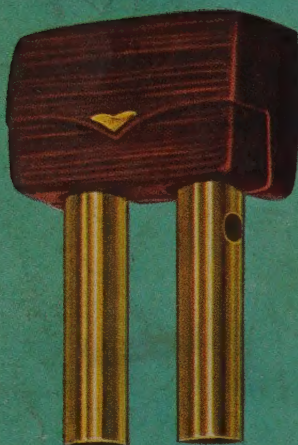
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FHA scandals—after three months

- ▶ **Tightening rules, the agency bans 26 items from Title I repair loans, forbids mortgaging out on rentals**
- ▶ **HHFA continues to smear 608 builders for profits, hints criminal action—which Justice Dept. says is unwarranted**

FHA made sure the barn door was locked. Last month, it banned 26 luxury or nonessential items from further Title I repair loan financing. Among them: barbecue pits, swimming pools, dog kennels and fire alarm systems—all of which had drawn Congressional fire at the celebrated April FHA-scandal hearings.* Lumberman Norman P. Mason (whose nomination as permanent FHA commissioner went to the Senate) also tightened up on FHA rental housing; he ordered FHA's 75 district offices to send applications for 12 or more rental units under Sec. 203 to Washington for approval in the future. His announced aim: to be sure that Sec. 207's more exacting standards for rental housing are applied to any sizable rental projects. Mason also issued an order banning future mortgaging out on rental projects (see p. 36), although many experts thought he lacked power to do so.

These steps, by FHA's own men, the housing industry took with silent assent. Silence—at least initially—also greeted a step not taken by FHA's own men—a proclamation by HHFA that investigation of Sec. 608 had turned up some \$40 million in mortgaging out profits to corporations which built 70 projects. But this appeared to be the silence of bitter mistrust.

\$31 million windfalls. Deputy HHFA-administrator William F. McKenna, in charge of the agency's investigation of FHA, gave out this picture of Sec. 608 finances for the 70 "windfall" projects he found among the 219 corporations:

Paid in capital stock	\$ 4,141,390
FHA-insured mortgages	277,593,500
Reported cost of projects	239,374,770
Total windfall	39,539,833
Windfall distributed	31,755,000

He asserted that cost padding by "excessive prices" for land and construction were the principal reasons for the mortgage profits. He said: "This investigation has already demonstrated beyond question that certain promoters were aided and guided by former top FHA officials in the windfall practices." He said that each case has or will be referred to the Justice Dept. for "such civil or criminal proceedings as may be indicated. . . ."

Crime that isn't. As HHFA must have calculated, the nation's newspapers played the announcement prominently. To many close observers of the FHA tempest, however, the disclosures had an odd scent. Most obvious: HHFA made no mention of the fact that (except for a possible tiny handful of cases) there was no question of crime involved in Sec. 608 mortgaging out, that builders in-

volved were either 1) smart enough to build for less than FHA figured it should cost the "average" builder, or 2) like Gross Morton, keeping their books to show minimum costs for tax purposes.

Indeed, Gross Morton's Glen Oaks Village project was among the 70 so scathingly cited by HHFA's second in command. The Justice Dept., meanwhile, was admitting (in an unpublicized proceeding) that there was nothing illegal about the \$4 million mortgaging-out profit at Glen Oaks Village (see p. 36). And to the US attorney in St. Louis, the Justice Dept. issued a hands-off order to his proposal that a federal grand jury investigate a Warner Kantner 608 project, Canterbury Gardens, in suburban University City. Yet Canterbury Gardens had been brought up by Asst. At-



TESTIMONIAL DINNER: Smiling Guy Hollyday at a party given him by 270 friends in the ballroom of the Lord Baltimore Hotel, with Urban Land Institute President John Mowbray (r) and the woolly prize of the evening, Sherman Adams. The lamb was Mowbray's gift to Hollyday, lugged into the ballroom at Mowbray's announcement: "So I'm going to call in Sherman Adams! No matter how big, tough and nasty Sherman Adams may be, Guy Hollyday will always be his master." Guests also heard from Toastmaster James Rouse, who said that contributions amounting to \$5,000 had come in from 34 states toward dedication of "Hollyday House" in rehabilitated Baltimore and from Hollyday himself, who reiterated that his time in Washington had been "a very exciting year."

torney General Warren Olney in his testimony to the Senate banking committee. He charged that FHA insured a loan for \$3,654,000 although Joseph Kantner and Harry Warner estimated the cost at \$3,239,955 and executed a contract for \$100,000 less than that. Wrote Ben Brooks, chief of the general crimes section of Justice Dept.'s criminal division (headed by Olney): "We do not believe this matter should be submitted for additional investigation or prosecution. . . . Against the background of construction cost estimates and maximums, we do not see the relevancy of your reason as a basis for a conclusion that a prosecutable criminal violation occurred, since the FHA could not, by terms of the act, take into consideration the actual costs and did not, by its own admitted policy, rely either on the disclosed or hidden and subsequently revealed, construction contract."

McCarthy tactics? Burton C. Bovard, suspended but fighting efforts to oust him as FHA general counsel (H&H, June '54, News), meanwhile called off a scheduled public hearing on his own case after FHA Boss Mason, while insisting on cross-examining Bovard, refused to make himself subject to similar questioning. He accused Mason of prejudging the case and violating "due process of law and . . . ordinary standards of impartiality and fair play." For instance: FHA was denying Bovard access to the documents on which its "vague" but sweeping charges against him were based—documents covering 11 years and thousands of transactions. How, asked Bovard's attorney, could he possibly defend himself in such circumstances?

In the circumstances, FHA last month was still looking for somebody to replace Bovard. Commissioner Mason was likewise still seeking capable men for the other five top jobs in the agency left vacant four months ago after sudden resignations and ousters that followed Guy Hollyday's firing. At Boston last month, Commissioner Mason took note of the vacancies (which make it hard for FHA to function properly), but added: "I will be filling them soon."

Congress, FHA try three ways to ban mortgaging out

By three separate and uncoordinated methods, Congress and the FHA tried last month to forbid mortgaging out on rental housing projects.

The Senate finance committee wrote an amendment into the pending general tax-revision bill which would make mortgaging out profits subject to ordinary income tax rates instead of capital gains rates, which most builders say now apply. Specifically, the committee voted to tax as dividends the distribution of "proceeds of loans guaranteed by the United States which exceed the cost of the property by which such loans are secured." The change would not be retroactive.

Prime mover behind the action appeared to be Sen. Harry F. Byrd (D, Va.), a leading critic of FHA operations and a high ranking

* Other forbidden items: bathhouses, burglar alarms, burglar protection bars, door opening and closing devices, dumbwaiters, fire detecting devices, fire extinguishers, flower boxes, grading and landscaping, greenhouses, airplane hangars, lawn sprinkling systems, outdoor fireplaces, penthouses, photomurals, radiator covers, stands, steam cleaning of exterior surfaces, television antennae, tennis courts, tree surgery, valance or cornice boards, Venetian blinds.

member of the finance committee. After the tax bill clears the Senate floor—probably in mid-July—it will go to conference with the House to reconcile differences. One of these would apparently be the taxation rate for mortgaging out profits. But there was no reason to think the House would resist the Senate's tightening.

Forced repayment. The Senate banking committee, tightening up the housing bill (see p. 37), adopted a different (and most observers thought dangerously clumsy) approach. It voted to require builders of rental projects to certify their costs (plus 10% profit), then apply any excess mortgage *above the allowable percentage of loan to value ratio* toward reducing the loan.

Not only would this system amount to recasting of mortgages after a project is completed, but it would penalize efficiency and cost-cutting since a builder would be able to keep none of the savings. Moreover, said experts, it is almost impossible to arrive at a formula for measuring all builders' costs. For example, many builders buy materials on a yearly basis and do not make definite cost allotments between various jobs. It is not easy, either, to split up job by job the costs of overhead and technical supervision. If a builder has his own architectural division, would he be forced to figure its services at actual cost or on the basis of a standard fee?

In any case, two laws were not needed to stop mortgaging out. The prevailing opinion was that if the Senate banking committee solution survives to become law, it will kill FHA rental housing, which last year accounted for some 37% of the nation's total rental housing output.

Semisecret FHA order. Meanwhile, FHA tackled mortgaging out through its administrative regulations. Commissioner Mason, who had proclaimed on taking over that "we're going to live in a gold fish bowl from now on," quietly issued an order to lenders in familiar semisecret FHA fashion:

- ▶ No dividends shall be declared or paid on FHA rental projects except out of earned income.
- ▶ Rental housing corporations may not redeem, purchase or cancel any of their capital stock "or effect any changes in capital structure whatsoever."
- ▶ Rental housing corporations may not dispose of any proceeds of mortgages in excess of the actual cost of a project, but must plow such amounts into loan reduction.

The order applied to mortgagors under Sec. 207, Sec. 608, Sec. 803 and Sec. 908. Only loophole: corporations which want to declare dividends or reorganize financially can ask FHA for a waiver of the ban.

Although the order was issued May 18, news of it did not leak out until early June. Why all the hush-hush? Experts close to FHA supplied one answer: legally, the agency has no power to enforce the new rules until and unless Congress tightens up FHA law. As they saw it, FHA was just trying to scare rental housing operators with bluff.

US court hears key Sec. 608 tax case; Glen Oaks tenants lose on rent rebates

The case of the Commissioner of Internal Revenue vs. George M. and Anna Gross *et al*—key US tax court case involving Sec. 608 mortgage profits—is a simple, but loaded one. It is a test civil case to determine whether 11 family stockholders of several corporations formed by the Gross brothers, big New York builders, and their former associates, the Mortons (Lawrence, James, etc.), should have paid a regular income tax on some \$4 million of profits gained from housing project construction or whether they were correct in paying a capital gains tax (H&H, March '54, News). The Internal Revenue Service asserts that the stockholders owe more than \$3 million in income taxes for the years 1948 and 1949—this in addition to some \$1.5 million that they did pay. A first hearing has been held in Washington and briefs were due the middle of last month.

Surplus on 608. The big money surrounds a mammoth Gross-Morton endeavor, Glen Oaks Village on Long Island. Of 27 corporations formed by the families, 23 were organized incidental to the Glen Oaks project. The whole operation cost approximately \$20 million. FHA insured Sec. 608 loans, mostly made through the Prudential Insurance Co. of America, amounting to \$24 million. The \$4 million difference is approximately, in the words of Clay C. Holmes, counsel for IRS, "the distributions that are here in controversy."

No illegality is attached to the fact that the Sec. 608 program enabled the Gross-Morton interests to show a surplus. It is interesting to note, in fact, that both Holmes and Harry Rudick for the petitioner (he is a member of the highly reputed New York law firm of Lord, Day & Lord, which until the last election boasted the services of Attorney General Herbert Brownell) agreed during the hearing that "nobody loses" under such a 608-guaranteed program as Glen Oaks. Rudick: "And Mr. Holmes said nobody loses. And it is perfectly true that nobody loses. The government has a good investment. The property has appreciated in value. The government has gained, in fact, because these people have paid \$1,500,000 in capital gains taxes. The government has gained something."

Law in their hands. Meantime, groups of tenants in Glen Oaks Village instigated lawsuits or harassing actions against the management, asking rent rebates and rent decreases. Such efforts received a considerable setback when a New York court dismissed three complaints last month. The most persistent group—350 present or former tenants who had asked \$6 million from individuals or corporations involved in the project, plus \$2.5 million in rent rebates—planned to appeal. Paul Tannenbaum, counsel for the group, said the suit was based on the premise that rents were

fixed in proportion to a mortgage of \$24 million (plus carrying costs and a 6½% return for the builder) whereas they should have been based on a mortgage of \$18 million. He arrived at this view by figuring that if the actual construction cost of \$20 million had been estimated on the nose, the FHA-insured mortgage would indeed have amounted to \$18 million. His projected plan, in the event the suit is eventually successful, was to get stockholders in the development to transfer the sum of \$6 million to the corporations. The latter will use it to reduce the mortgage and thereby, said Tannenbaum, reduce the rent. The rent rebates, he contended, were due tenants on the basis that interest, amortization and insurance payments on the "surplus" part of the mortgage (at a combined rate of 6%) have amounted to about \$360,000 a year for seven years.

Justice Nicholas M. Pette decided, however, that the courts of the state did not have power to supervise or revise official acts by FHA under act of Congress. Said Tannenbaum: "We have resigned ourselves to a long fight."

It was apparent from testimony in the Gross tax hearing that counsel for IRS had adopted a somewhat different view of a builder's take from a 608 project than that subsequently adopted by Congress and HHFA, with their cries of "unconscionable profits." IRS was, in fact, basing its case on the premise that the builders deserved compensation and that if on this particular project they had taken such compensation it would have been straight income and open to ordinary taxation. Counsel for the government: "They were certainly entitled to compensation for the splendid services that they rendered these corporations. . . ." The tax men seemed to regret that Gross *et al* had not taken some payment; profits were all right by the revenue men as long as they could be taxed at a full rate.



GROUND BREAKING for NAHB's housing center in Washington brought together most of principals in FHA uproar and housing bill legislation: (l to r) HHFA's Cole, FHA's Mason, Rep. Wolcott, NAHB Chief Hughes, Sens. Sparkman, Capehart. Eight-story building will cost \$2.5 million.

Housing bill, near passage, needs miracle to save it

Four months ago, it looked as though, after months of labor, the nation might get some of the most coherent housing legislation ever passed. Last month, it looked as though it would take a miracle in conference between the House and Senate to avoid giving the building industry some of the worst housing legislation ever—thanks to the scandal so gratuitously kicked up over FHA.

Nobody knew as the bill headed toward conference what would come of it. Maybe there would be real statesmanship. One trouble spot was House and Senate differences over public housing. The House voted to end the program after the 33,000 units now in PHA's pipe line are built. The Senate, responding to White House pressure, adopted Eisenhower's program for 140,000 units in four years. At midmonth, the House was threatening to insist on no public housing. Unless a compromise could be reached, this might block passage of any housing bill at all, save for emergency extenders for items like FHA Title II insurance authority and the Wherry Act.

Though the public housing wrangle held the headlines, it was only one of 159 differences between the House and Senate measures. Many others (in addition to antimortgaging-out provisions—see p. 36) were vital to home-

building. Some of them: for Title I repair loans the Senate would shift from full insurance up to 10% of each lender's portfolio to a straight 80% insurance on each loan—a potential blow to rehabilitation programs. Another blow to antislum drives: the Senate dropped the House-approved change making the same FHA terms available for existing houses as for new ones. For Sec. 221, the Senate wrote crippling amendments. It wrote a tighter warranty by eliminating the word "substantial" from the "conformity" to be required to specifications.

Voluntary wiring standard adopted by homebuilders

Today's appliance-loaded homes need far more electric capacity than minimum legal wiring standards require. Electric consumption in the average US household zoomed from 897 kwh in 1939 to 2,350 kwh last year.

Last month, at its spring directors' meeting, NAHB adopted a voluntary wiring standard which should go a long way toward insuring more adequate electric circuits for tomorrow's houses. Principal point: 100 amp. capacity service panels (recommended by H&H), instead of the 60 or 85 amp. entrance capacities common today. Said NAHB's standard (its first involving design or equipment of homes):

▶ "There shall be a three-wire 110/220 v. drop from the pole to the service entrance head.

▶ "From the service entrance head to the meter and service entrance panel, run three-wire No. 2 service entrance cable or 1½" conduit containing three No. 2 wires (approx. capacity, 100 amps.).

▶ "The service panel shall provide for circuit breakers or fuses for at least eight circuits (preferably 10 or 12) and shall be so designed that at least two of these circuits may be three wires and equipped with circuit breakers or fuses of up to 50 amp. capacity.

▶ "When the service entrance panel is installed in a way which might require 'remodeling' to utilize the spare circuits, provide two 'dead' three-wire No. 6 cables or two empty 1" conduits (rigid or flexible) . . .

▶ "If there is an attached garage, run one 'dead' three-wire No. 12 cable or empty 1" conduit from the panel to an accessible location in the garage. This provides for power tools, home freezer or laundry equipment in the garage."

David C. Slipper, chairman of the wiring subcommittee that drafted the new code, reported FHA and VA in two test cities, Detroit and Los Angeles, have agreed to establish valuation increases to cover the extra cost of the new wiring standards. Next on the committee's agenda: the three-wire system (recommended by H&H) going up from No. 14 to No. 12 wire (recommended by H&H), running wiring as base plug level instead of through the ceiling (recommended by H&H).

Drives on for local court action against home repair loan crooks

The battle to get shoddy home repair loan operators indicted and into court swung in favor of local law enforcement agents in several cities last month. Home owners had awakened to the fact that some of the salesmen were not as honest as they looked and were telling the authorities so. FHA offices were doing everything within their limited manpower to ride herd on owner-lender negotiations before they agreed to insure loans under Title I.

It has been estimated by FHA that 10% of the dubious dealers on its "precautionary list" are doing business in southern California. The US Attorney's office in Los Angeles was whittling away at a backlog of 1,400 pending FHA cases of various sorts. Up north, four men were sentenced by a federal judge for filing false statements with FHA.

Found guilty. Sentences of 18 months in prison were handed in San Francisco to Nathaniel H. DeShong, Ben Zukerman, Arnold Wool and James N. Stefan, a suede-shoe group who had been charged some months ago with cheating home owners in the Oakland area (H&H, March '54, News). They practiced the old gimmick of telling the home owners they would use his renovated house as a "model home" to stir up business in the neighborhood, also obtained FHA insurance by stating the owner had paid a 10% deposit when he had not. Judge Louis E. Goodman, in describing the racket: "There was great damage not only to the people who signed the contracts but to

the public treasury. The contracts were for exorbitant sums and my report shows that these men made large amounts of money." Zukerman's attorney, arguing for a light sentence, said, "If the lending institution had acquitted itself of the requirements placed on it by the FHA, these wrongs would have been obviated." Answered Judge Goodman: "That is a justifiable criticism of the administration of the statute, but it does not go to mitigation of the sentence."

The Bay Area was getting ready to throw the book at other operators. Twelve men (members of a paint firm charged with falsifying FHA applications) faced trial in federal court in San Francisco and 19 more had been indicted in Oakland for anything from forgery to theft. Other legal action:

▶ Eighteen home improvement company owners or salesmen had been indicted in Los Angeles on charges of making false statements to FHA in connection with home repair loans.

▶ The first of eight persons indicted in a VA investigation of veterans' home loan applications in Texas—Raymond Thomason of Abilene—was found guilty. Among others indicted: the American General Investment Corp. in Houston.

▶ In New Jersey, six men were indicted on a total 27 counts connected with falsifying documents to obtain FHA-insured loans.

Pending investigations. There were, in addition to these direct actions, a number of

cities planning grand jury investigation of what home owners told them was true about repair loan dynamiters. Ft. Lauderdale, Fla. had been promised an investigation by Asst. State Atty. Frank S. Cannova, who said: "They have been pretty slick throughout, operating on the borderline of legality. But it looks like some of them may have stepped over the line." In Miami, dozens of citizens were up in arms charging they had been given rough treatment by a man holding a franchise to sell a cement wall facing called Perma-Stone; several were surprised to find they had signed unwittingly for second mortgages. A grand jury in St. Louis had been told to go ahead with a full investigation in the city and county of repair loan swindles. Alleged violations in the Champaign-Urbana area across the river were also under inquiry and one man—Maurice S. Bauman—had been arrested on charges of falsifying records of the First Savings & Loan Assn. in Rantoul, Ill. when he was an officer there in 1952.

US attorneys were getting an important assist in many places from Better Business Bureaus. The latter pointed out that in 1953 inquiries and complaints about home construction, repair and modernization ranked second (moving up from fourth place the year previous) in the roster of all inquiries and complaints received. Headquarters cautioned the regional offices not to imply that the majority of insured loans under Title I were suspect, but called complaints sufficiently numerous to present a "serious situation."



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Retail lumber dealers vote to study fair trade code

After considerable debate at their May meeting in Washington, directors of the National Retail Lumber Dealers Assn. voted 66 to 7 to explore the possibilities of drafting a code of ethics or "fair trade practices" for their industry that would not violate federal antitrust laws. First step: a letter notifying the Federal Trade Commission that NRLDA intends to write a code. This is a precautionary formality so lumbermen cannot be accused of surreptitious antitrust scheming.

Manufacturer and jobber discounts and other wholesaler and retailer "distribution problems" of the industry will probably get worse before they get better, said Executive Vice President H. R. (Cotton) Northup in announcing the proposed study. Some directors protested the code might mean more government regulation. Counterargument: only a study was proposed; there was no certainty yet that it would lead to a code acceptable to the industry itself or to the Justice Dept.'s antitrust division. Other developments:

▶ NRLD directors approved plans for a national exposition and dealer-training show, including a comprehensive consumer exhibit of modern living, to be held in New York Oct. 2-10 as part of the NRLDA convention.

▶ Executive Vice President Northup expressed belief that FHA Commissioner Norman Mason, who was NRLDA president in 1946-48, would broaden the base of FHA activity so it does not concentrate so much on suburban or "city tract" projects to the exclusion of helping developers and builders in smaller regions.

Directors of the National Lumber Manufacturers also met, decided to step up efforts for more equitable fire insurance rates and to adopt a double-barreled statement asking greater government protection against "unfair" foreign competition, plus elimination of foreign barriers against US lumber and plywood exports.

Court bans AFL picketing to force unions on builders

Last January, when AFL building trades' lawyers injected themselves into a Michigan hearing on a picketing injunction, NAHB leaders grew worried. The AFL argued that a recent US Supreme Court decision had upset the long-standing legal finding that homebuilding is not interstate commerce, and thus not subject to regulation by the National Labor Relations Board. If the union's views prevailed, builders feared it would open the way to forced unionization of US homebuilding (now about half open shop).

Last month, builders' fears were eased: Judge Blaine W. Hatch of Calhoun County's circuit court ruled decisively against the union. At issue was a squabble in which AFL electricians threw a picket line around a 70-unit project of defense rental homes at Battle Creek last July. After a ten-day shut-

down, Builders David R. Satin and Harold Albert got a temporary injunction against the picketing (Michigan's right-to-work law makes picketing to force unionization illegal). Next day, AFL carpenters took up the picketing, but Satin countered with another court restrainer—this time covering all AFL building trades unions, whom he accused of conspiracy.



SATIN

Top AFL attorneys in Michigan contended, during hearings that lasted for six months, that the state court had no jurisdiction, although a state law was involved. Their argument: the US Supreme Court last Dec. 14, in the *Garner* case, had held that a trucking firm carrying material between two railroads, but entirely inside Pennsylvania, was nevertheless involved in interstate commerce and subject to NLRB control; thus, so were Builders Albert and Satin. Rejecting this view, Judge Hatch held that the *Garner* decision was inapplicable to the homebuilding case because: 1) the trucking firm was "an integral part of a transit system" (an area where NLRB takes jurisdiction), and 2) four *Garner* men were AFL teamsters so that case "turned on a discussion of public vs. private rights."

National S&L League gives rival US League seven-point merger offer—with strings on it

The first definitive program for unification of the US Savings & Loan League and its erstwhile bedfellow, the National Savings & Loan League, was put in writing at the National League's 11th annual convention in New Orleans. Delegates approved a seven-point statement devised by their unification committee in answer to a five-point statement tendered them by the US League. Mutual objective: one big happy savings and loan league. Chances of achieving the objective: somewhat better than they were six months ago, but not yet anything to bet money on.

During the past six months the US League has made several overtures to the National League toward combining efforts and assets. Such overtures were politely received, but nothing much was done about them. Members of the smaller National League (750 members) may have felt that the offers from the US League (4,200 members) smacked of paternalism. They may also have still been imbued with that independent spirit that first drove 172 members of the US League to break off in 1943 and set up the National League. It is notable now that individuals in both organizations feel that the objections to policy that first moved the new group to break with the old have been forgotten or smoothed over (the chief executives of both leagues have since

Moreover, Judge Hatch noted that although Congress "gave NLRB exclusive jurisdiction of unfair labor practices affecting commerce," it also permitted the board to cede jurisdiction to state courts where state laws do not conflict with federal law. In 1950, the judge noted, NLRB did cede jurisdiction over some labor disputes by announcing that it would consider only cases which fell under one or more of nine categories. Of these, only one would stretch to cover homebuilding: a requirement that there be involved a "direct inflow of out-of-state goods of \$500,000 a year or a direct inflow of \$1 million." Since Builders Satin and Albert bought only \$473,000 worth of materials in a year, sold nothing outside Michigan, sold nothing to firms engaged in interstate commerce, the judge held that "NLRB, under the facts as established, would have declined jurisdiction," leaving jurisdiction clearly in the state domain. Moreover, Hatch ruled, the picketing electricians "interfered with traffic," which alone would have given the state court power to act. He made the injunctions permanent.

A decision was still pending in the carpenter case. But since both sides had stipulated that the same facts applied, Satin and other homebuilders were confident the ruling would be in their favor. AFL attorneys said they would fight the cases to the US Supreme Court. But the first round, at least, was a knockdown victory for homebuilders.

retired) and the question now is simply whether the recent stipulations of each group can be ironed into compromise.

What's in a name? The US League's five-point proposition included mention of the desirability of a combined organization, a belief that if such combination were effected dues could be lowered and a provision for integration of members of the present National League staff into the new organization. The president and first vice president of the National League would serve ex officio on the US executive committee until the US League convention in November. It also included—and this point may prove a bit sticky when the committees take their respective programs to the mat—a statement that the US unification committee could promise no changes in the US League's election procedure or "provide specifically for representation of members in the combined organization beyond that now provided in the US League constitution."

The National League's initial stipulation was that in case of merger the new name should either include both "National" and "United States" or neither. More important, it was suggested that the combined organization adopt a new constitution incorporating provisions of the constitutions of both leagues. And it was implied in the National League's

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recommendations that the post of executive manager in Washington now operated by the league be maintained. (One of the points that the "new" element adhered to when it broke from the US League was that the body's main office should be in Washington, not Chicago.)

The provisos offered by each side were brief. Even so, comments from both groups (although their executives professed complete willingness to meet the other more than half way) indicated that the unification committees will go through considerable hassle when they meet in Chicago, as planned. To paraphrase the view of a Californian who belongs to both the National and US Leagues (a "double dues-er," in the vocabulary of the trade): the "courtship" process toward a remarriage of the leagues should last two or three years; divorced once, a reconciliation of the two will be particularly touchy.

New president. Alfred G. Peterson of Greenwich, Conn., newly elected president of the National Savings & Loan League, was guarded in his comment on unification when interviewed after his election. "A great many in the industry favor unification because they feel that one united league would be good for the savings and loan industry," he said. "If there were one league, there would be one legislative viewpoint." Peterson is 42, has been president of the first Federal Savings & Loan Assn. in Greenwich for 12 years, during which time its assets have grown from \$750,000 to \$15 million. He has served as president of the Northeastern Federal Savings League and is now a member of the Connecticut Public Expenditures Council, an agency of top business executives who keep tab on the fiscal operations of the state government. He is also treasurer of the Greenwich Housing Authority. He plays golf in the '90s, swims and fishes, owns a boat but lets the oldest among his four children skipper it.

Peterson thinks the law for savings and loan associations requiring that they have 5% of their insured accounts in a reserve fund by the end of 20 years should be changed. He believes associations should be allowed to reduce their accounts by 75% of their VA and FHA mortgage holdings in computing minimum reserve requirements. This would encourage more FHA and VA loans, he argues. He has also discussed the possibility of legislation to permit savings and loan investments in other areas than government bonds and home loan banks, "possibly in state and municipal bonds which are guaranteed by the state and/or municipal governments." The future for the savings and loan industry as a whole (its assets are now \$28 billion) is tremendous, Peterson believes. "I expect to see the industry have resources totaling \$50 billion within the next ten years."



PETERSON

SIDELIGHTS

New fight-blight tool

At the Texas MBA convention, MBA Vice President Wallace Moir plumped for more power for the mortgagee in requiring maintenance of properties. He suggested such action as one means of combatting the "unremitting forces of deterioration" that bring on urban blight faster than it can be alleviated. "The solution seems to be," said Moir, "to have a provision in the deed of trust or mortgage agreement that will require periodic payments to be made to a fund to be held for future maintenance, to be expended on the order of or with the consent of the mortgagee. . . . Failure to add to the fund as stipulated could be made a default under the mortgage—a condition much easier to enforce than the vague one of whether or not waste was being committed." Two other Moir suggestions: pattern amortization of long-term mortgage loans more clearly in line with natural depreciation of property; get the support of the law to prevent neglect of property.

Cold shoulder for plastic pipe

Despite a favorable report on the health aspects of plastic pipe for water transmission and distribution, the American Water Works Assn.'s 74th annual conference in Seattle May 23-28 took no action—formal or informal—to endorse plastics or to open the way for their greater use. Walter D. Tiedeman of the University of Michigan's public health school presented a preliminary report on a testing of 23 samples of plastic pipe at the National Sanitation Foundation Testing Laboratory: samples of plastic pipe exposed outdoors for a year showed less change than conventional pipe used as controls; plastic samples buried in acid soil for a year showed less change than copper tubing and galvanized steel pipe;

samples tested were ascertained to be "suitable . . . from the standpoint of health."

As one AWWA official put it: "Plastic pipe is one of the most promising new materials, but it is not yet to the standard specifications stage." Commented past President Morrison B. Cunningham: "I imagine it will be several years before standard specifications are worked out. We are in no position now to do more than discuss plastic pipe."

Fixup statistics rejected

Budget Director Rowland Hughes, a former New York banker, last month overrode the recommendation of his own review committee to reject the building industry's plea for \$1,139,000 for better statistics. The money—as part of a supplemental appropriation—would have been sought from Congress to sharpen some of the fuzziest facts about construction. The Census Bureau was to get \$300,000 to develop the first accurate measure of how much money home owners spend to fix up and modernize their homes. BLS was to have received \$360,000 to improve its field surveys of housing starts in nonpermit areas. Commerce's construction branch was to get \$479,000 to get more accurate reports on nonresidential and nonfederal public building—one of the worst gaps in building figures.

The turndown means that, at least until fiscal 1955-56 (when Hughes indicated he might reconsider), the US will go on spending only about \$500,000 a year to keep tabs on the \$40 billion construction business (its second biggest). That is about as much as the Agriculture Dept. will spend (\$447,000) to study diseases and parasites of swine, and a good deal less than the \$765,000 the government will plunk down to find out what makes cattle sick.

Dewey G. Mears

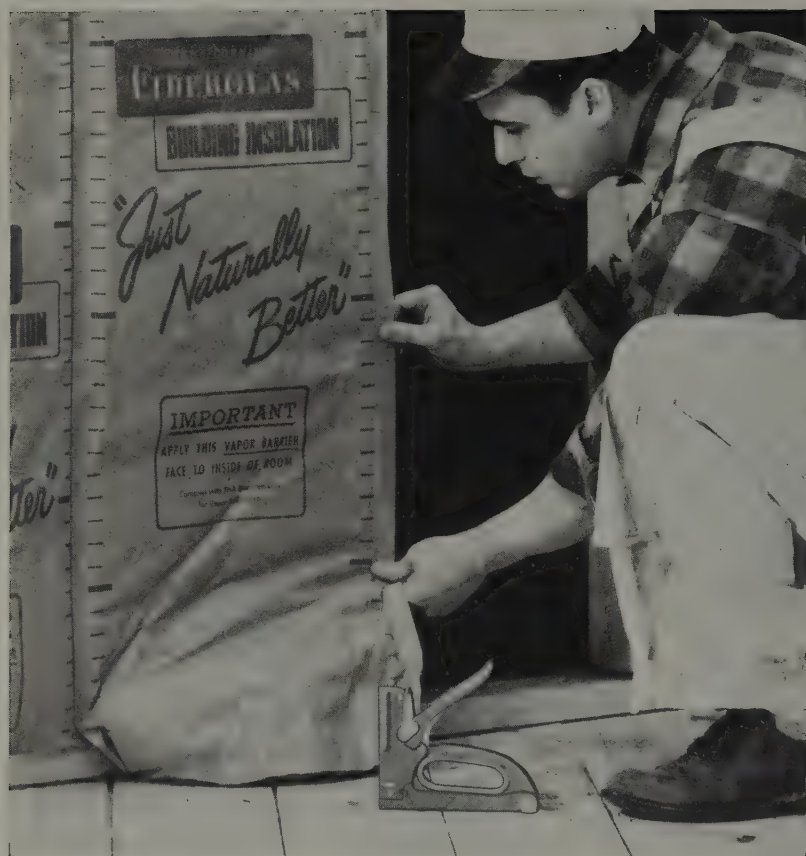


NAHB opens its Air-conditioned Village in 97° heat

The man on the platform is NAHB President Richard G. Hughes welcoming opening-day visitors last month to the 22-home Air-conditioned Village 5 mi. outside Austin, Tex. Temperature: 97°. Length of opening ceremonies: 2 minutes. Gov. Allan Shivers did not make it, but 500 representatives of the building and air-conditioning industries did.

Eight of the homes—all built by members of the Austin chapter of NAHB and up for sale on

the open market—had been sold by opening day. Researchers felt that a cross-section of occupants would suit their purposes better than a screened group under "laboratory control." A basic aim: to determine operating cost data and submit it to FHA and VA. Other aims: to compare performance of 22 different types of air-conditioning systems, to check on suitability of different house design features, to assemble material on reaction of families living in the homes.



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It pays off for you because house prospects know about Fiberglas Insulations. They recognize Fiberglas as a sure sign of comfort, economy and *quality* construction. This is an *extra* feature that can help to swing the sale. So, always specify the best and the best-known of all insulations—specify Fiberglas! Your next project would be a good place to start! Owens-Corning Fiberglas Corp., Dept. 67G, Toledo 1, Ohio.

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HOUSING STATISTICS:

Lenders fear the nothing down house will bring some overbuilding

Even though some big insurance firms eased up on their mortgage buying last month (some brokers said two companies had dropped out of the market entirely for the time being), mortgage money was so plentiful that many a thoughtful mortgage banker was worried about overbuilding. Predicted Senior Vice President William Marcus of San Francisco's American Trust Co.: "We will overbuild for the veteran market and, toward the end of the year, you won't be able to give houses away. I think the next six months will see more vets' houses erected than any other period since 1950. There will be a boom as long as the money lasts. . . It's all a very unhealthy condition." Said John F. Austin Jr. of Houston: "I expect to find too many houses built in certain sections by the end of the summer. Maybe not in Dallas, maybe not in Ft. Worth, perhaps in Houston."

Heart of the "unhealthy condition," as many a lender saw it, was the swelling boom in nothing-down VA housing—a boom fueled by the plentiful money supply in the US economy resulting from the government's easy money policies. Sample: in San Diego, Builder (and NY Yankee's co-owner) Del E. Webb was advertising \$14,000 FHA homes with no down payment—not even closing costs. At that price, with 30 year amortization, it would be ten years before owners had paid their mortgage down \$3,000. Would the houses still be worth \$11,000 by then?

To get 100% loans, builders were generally more than willing to pay 2½ to 3 points (see table). But that was only another way of raising the price of a house in order to sell terms.

For some builders who made commitments months ago when FHA loans were going for around 97½, it now made sense to skip the proffered mortgage money. Reason: a new deal was easy to arrange. So even with loss of a 1 point deposit, the builder was ahead. Commented Franklin White of Portland, Ore.: "We have been insisting that a builder, even with a previous commitment, get his money at the new, lower price. Lenders are going along because they realize this is fair."

With terms so favorable, few were complaining about sales (exception: the Philadelphia area—see p. 127). In New England, conventional interest rates sank from 4½ to 4%.

MORTGAGE MARKET QUOTATIONS

(Originations quoted at net cost, secondary market sales quoted with servicing by seller)
As reported to HOUSE & HOME the week ending June 11

City	FHA 4½'s		VA 4½'s†		No down payment VA 4½'s	
	Originations	Second-nary	Originations	Second-nary	Originations	Second-nary
Boston: local	par-101 a	par-101 a	par-101 a	par-101 a	b	b
Out-of-state	a*	99-par a	97½-par a	97½-par a	b	b
Chicago	97-99	99-par	97-99	99-par	b	b
Denver	99-par	99-par	99-par	99-par	b	b
Detroit	98-99 a	98-99 a	98-99 a	98-99 a	b	b
Houston	99	par	98½-par	99-par	97½-99	98-99
Jacksonville**	par	par	par	par	97-99	97-99
Kansas City	98-99 a	98-99 a	98-99 a	98-99 a	b	b
Los Angeles	99-99½	99-99½	97½-98½	97½-98½	b	b
New York	par	par	par	par	par	par
Philadelphia	par	par	par	par	b	b
Portland, Ore.*	par	par	par	par	99	99
San Francisco	par	par	par	par	97-99	97-99
Washington, D.C.	par	par	par	par	98½-99	98½-99

a No market. b Quotations not obtained

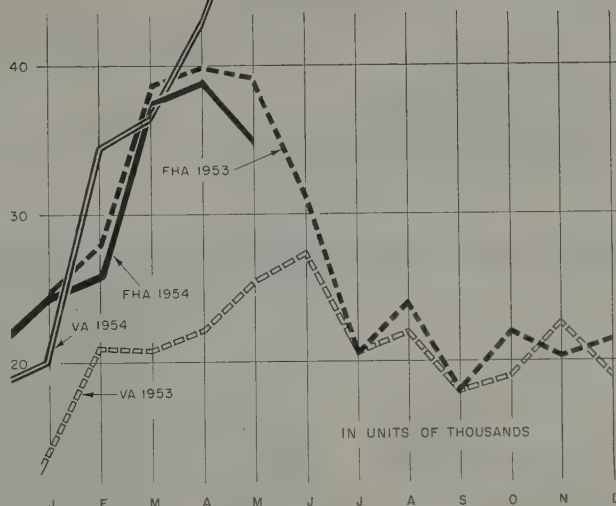
* Probable prices throughout Pacific Northwest. ** Probable prices throughout Florida.
† With owner's equity, where two sets of VA quotations are given; otherwise covers all types.

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cents Savings Bank; Chicago, Maurice A. Pollak, vice pres. & secy., Draper & Kramer Inc.; Denver, C. A. Bacon, vice pres., The Title Guaranty Co.; Detroit, Robert H. Pease, pres., Detroit Mortgage & Realty Co.; Houston, John F. Austin Jr., pres., T. J. Bettes Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whitley, Davin & Co.; Kansas City, Byron T. Shutz, pres.,

Herbert V. Jones & Co.; Los Angeles, John D. Engle, pres., Insurance Funds Mortgage Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, Laurence Stabler, vice pres., W. A. Clarke Mortgage Co.; Portland, Franklin W. White, pres., Securities, Inc.; San Francisco, William Marcus, senior vice pres., American Trust Co.; Washington, D.C. George W. De Franceaux, pres., Frederick W. Berens, Inc.

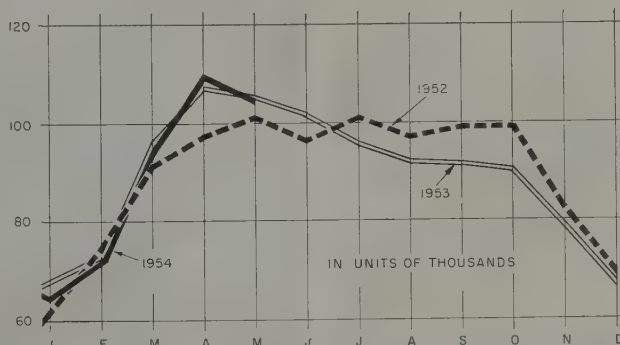
52,245 units

FHA AND VA APPLICATIONS



VA appraisal requests for May zoomed to 52,245 units, more than double the May '53 tally of 25,318, dramatic proof that mortgage money was plentiful indeed (see text and table). In contrast, FHA applications showed a decline to 34,715 units from April's 38,860.

PRIVATE HOUSING STARTS



Private housing starts for May totaled 105,500 units, a scant 100 units below the same month a year ago.

GOVERNMENT'S ESTIMATE OF CONSTRUCTION VOLUME

(millions of dollars—continental US)

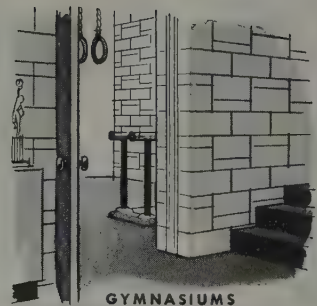
Type of construction	1953	1954	% change
Total new construction	\$35,256	\$36,000	+2
Private construction	23,877	24,150	+1
Residential building (nonfarm)....	11,930	12,125	+1
New dwelling units	10,555	10,675	+1
Additions and alterations	1,108	1,150	+4
Nonhousekeeping	267	300	+12
Nonresidential building (nonfarm)	5,680	5,850	+3
Industrial	2,229	1,950	-13
Commercial	1,791	2,050	+14
All other private construction	7,927	8,025	+1
Public construction	11,379	11,850	+4
Residential building	556	350	-37
Nonresidential building	4,352	4,705	+8
All other public construction.....	6,471	6,795	+5

Source: joint estimates by Depts. of Labor and Commerce.

More building dollars (a total of some \$36 billion) will be spent in 1954 than any year to date, according to a new joint forecast last month by the Depts. of Labor and Commerce. This represents an optimistic change of heart since last fall, when the government predicted 1954 volume at \$34 billion, or 2% below 1953. Present estimates instead anticipate a 2% rise over last year's impressive \$35 billion volume.

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- A decorative interior finish
- An insulative structural wall

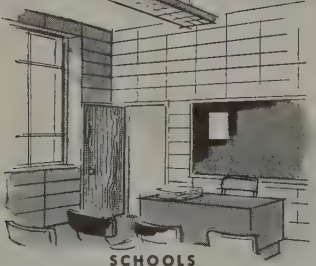
All at one low cost!



GYMNASIUMS



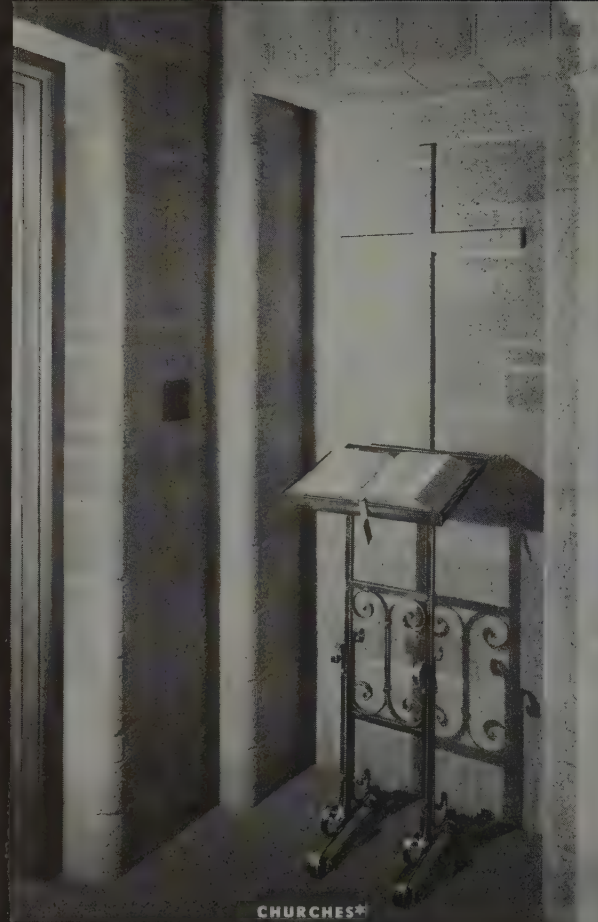
LIVING ROOMS



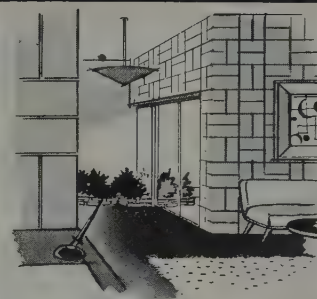
SCHOOLS



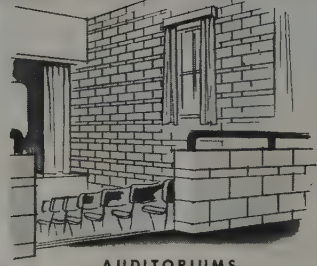
RESTAURANTS



CHURCHES*



HOTEL LOBBIES



AUDITORIUMS



SHOPS

*Diamond Lake Lutheran Church, Minneapolis; H. C. Hauser, Architect, Milwaukee

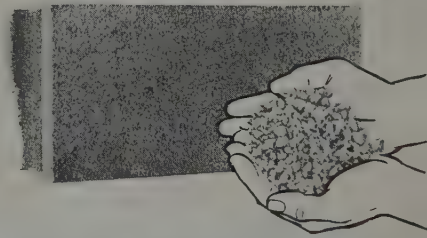
The great and growing popularity of Waylite Masonry structures is due to the combination of its several desirable qualities.

It is masonry. With all of masonry's desirable qualities . . . substantial . . . time- and fire-resistant . . . architecturally accepted throughout man's entire history.

But at this point the masonry characteristics of Waylite diverge. In Waylite Masonry, walls have a high thermal insulative quality that gives equitable room climate. The exposed surface of the units eliminates need for acoustical treatment. Decorative effect is easily achieved with varying sizes of units, laid in patterns; joint treatments; texture; colors. (See 24 pp. in Sweet's)

The low cost of Waylite Masonry comes in part from exclusive features of the raw aggregate material and large volume processing economies; and also in part from modern high-speed machinery and methods in the products plant.

Complete engineering and designing data is available. Address the Waylite Company, 20 N. Wacker Drive, Chicago, or Box 30, Bethlehem, Pa.

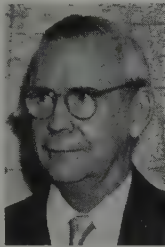


WAYLITE

MASONRY UNITS

PEOPLE: Walter Greene, former FHA chief, joins New York mortgage firm; Los Angeles Architect Burton Schutt dies

Ex-FHA Commissioner **Walter L. Greene**, who was retained as deputy commissioner by Guy Hollyday until he himself was ousted, joined Housing Securities, Inc. (**Thomas P. Coogan**, president) in New York as a vice president. Greene will work in a coordinating and administrative capacity with the company, which was organized in 1950 by 100 of the nation's most prominent homebuilders to help sell mortgages to banks. Housing Securities, Inc. also announced the opening of a branch office in Los Angeles, under the supervision of **Walter C. Aberg Jr.**



GREENE

Normal turnover of regional FHA personnel continued: **Thomas E. Hanigan** of Schenectady was named director of the insuring office in Albany to succeed **Joseph M. Murphy**, who resigned; **C. W. Broom**, real estate and insurance, was named director of the Seattle office.

Frank Lloyd Wright, just turning 85, was articulately on hand for the Los Angeles opening of his "Sixty Years of Living Architecture," first seen in New York (AF, Oct., '53, News) and set up last month in a Wright-designed gallery in a park near Hollywood Blvd. "They all take from me," he observed. "Something superficial. And they create a whole type of architecture, based on this superficiality. One took a few vertical lines and his whole architecture is vertical lines. Another took an elbow and everything he does is elbows. . . ." His appraisal of the city: "Los Angeles is much worse than the average American city because it is so widely spread out. There is more of it to be ugly. . . . But I am sure you will be a beautiful city in the future, for you won't be content to remain juvenile and ugly all your lives." Additional advice: "More flowers! More trees! More unselfish people!"

NAMED: **Maurice M. K. Murphy** of Rutherford, N. J., as president of the Federal Home Loan Bank of New York, to succeed **Nugent Fallon**, who retired and took a job as chairman of the Suffolk County Federal Savings & Loan Assn.; **Robert S. Hutchins**, as new president of the New York chapter of AIA; **Frederick C. Kracke**, executive vice president of the General Contractors Assn. of Contra Costa County (Calif.), as executive secretary of the Home Builders Council of California, succeeding **William E. Gillis**; **Richard G. Kimbell**, as vice president of technical services for the National Lumber Manufacturers Assn., a new post; **Robert N. Kelly** of Portland, Ore., as president of the Fir Door Institute, succeeding **A. C. Peterson**, of Tacoma.

The Senate banking committee named a chief attorney for its promised investigation of FHA shenanigans: **William Simon**, 42, a Washington attorney who helped Committee Chairman **Homer Capehart** (R, Ind.) investigate the pricing policies in interstate commerce in 1948, but has no professional building experience. . . . Banking Committee Clerk **Ira Dixon**, say insiders, is a contender for the vacancy on the Home Loan Bank Board. . . . Sen. **Leverett Saltonstall** (R, Mass.) slipped an item into the independent offices appropriation bill sparing HHFA's **B. T. Fitzpatrick** a pay cut. Fitzpatrick, the agency's deputy administrator and general counsel since 1949, lost his title as deputy when **William McKenna** moved in to take charge of HHFA's investigation of FHA (H&H, June '54, News). Saltonstall's amendment upped the pay grade of HHFA general counsel to \$15,000, same as the deputy administrator and heads of PHA and FHA.

Architect **Burton Schutt**, whose showplaces in Beverly Hills had become a trademark of lavishness, died May 31 of a heart attack at the age of 48. Schutt was born in Racine, Wis., the son of a dentist, and did not evolve an artistic style until he reached Hawaii at the age of 21 and started work with Architect **Lou Davis**. It was there that he picked up the Kanaka roof, the shoji, the lanai, the lush tropical plant-life schemes that he was to bring back and sell to Hollywood. He designed more houses



SCHUTT

for the stars and magnates of moviedom than anyone. He preferred jobs where he could be careless of cost ("Architecture is all challenge," he said). His houses hovered casually between the \$50,000 and \$200,000 mark, not counting landscaping. He dabbled slightly in low-cost houses, but his biggest interest was in the budgetless home, where he could let his imagination (and often his credit) run free to pools, black plaster walls and hanging gardens. At his death—doctors had warned him about his ailing heart—he was busy: his huge country club in Ft. Worth (90,000 sq. ft.) will be complete this summer; on his boards was a drawing for a 13-story office building in Los Angeles; and he was still in the process of remodeling his own home.

OTHER DEATHS: **Raleigh W. Greene**, 60, immediate past president of the National Savings & Loan League, president of the First Federal S&L of St. Petersburg, Fla., April 28 in St. Petersburg; **Charles R. Crane, II**, 61, vice president and a director of the Crane Co. and a grandson of its founder, May 8 in Chicago.



BEAR HUNTERS Angus Wynne Jr. of Wynnewood Development Corp. and Dallas Homebuilder Wilson Brown with one of the big Alaskan brown bears they got in the snowfields and thickets of Kodiak Island. The animals (they shot one apiece) stood over 8' on the hoof.

James T. Lendrum, director of the University of Illinois' Small Homes Council, officially turned down an offer from FHA Commissioner **Norman Mason** to become chief architect for FHA. Lendrum felt he could not accept the pay cut that the \$10,800-a-year job would have meant for him. His refusal was a blow to Mason's hoped-for reorganization and strengthening of the agency, but was not unexpected. A number of sources had thought after the Hollyday blowup that Lendrum might not accept an FHA appointment, even if the civil service commission got around to approving him (H&H, May '54, News). Sadly enough, **Guy Hollyday** and Mason had discussed at some length the possibility of upgrading the architect position to a salary in the neighborhood of \$13,000-\$14,000.

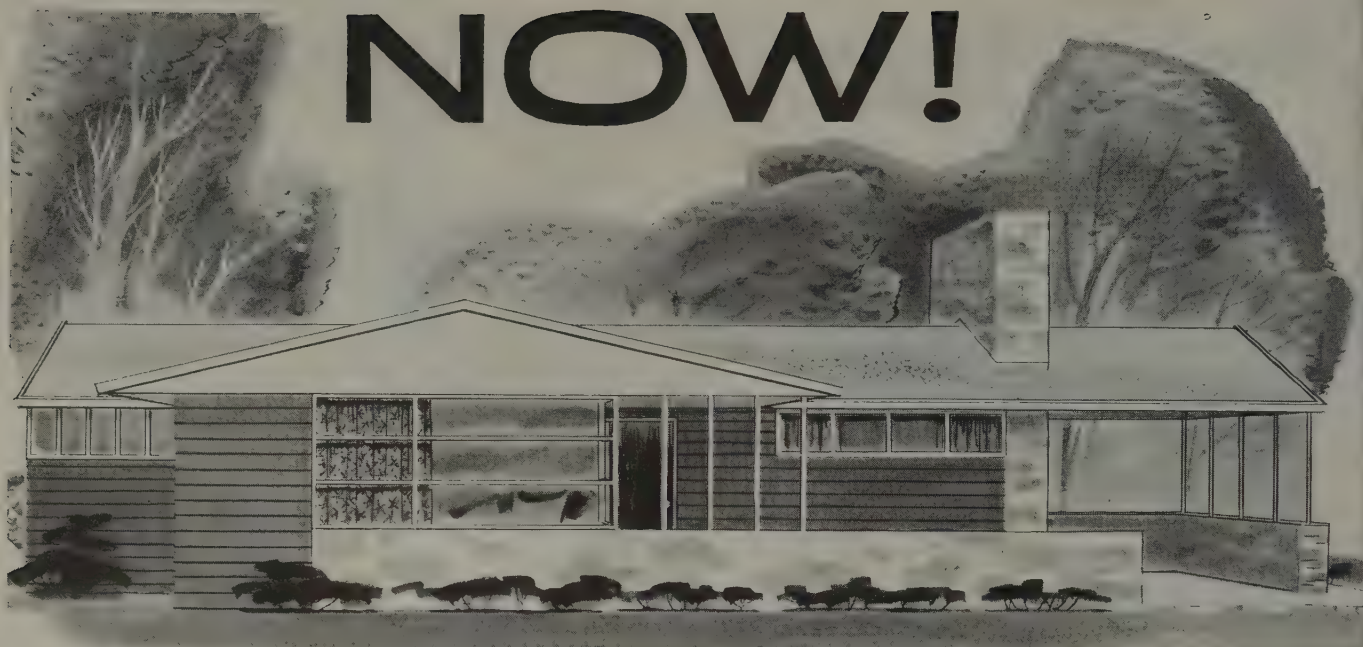
(NEWS continued on p. 93)

James C. Ward, Boston Sun. Post



PRIZE WINNER: This seashore home in Marion, Mass. won Boston Architect George W. W. Brewster the 1954 Boston Arts Festival Architectural Award. The residence of Gordon Gibbs, it can be easily maintained without servants and affords an appropriately informal atmosphere for teen-agers. Others honored by the Festival for outstanding architectural projects in New England: Carleton Richmond Jr.; Hugh Stubbins; Carl Koch & Associates; Anderson & Beckwith; The Architects Collaborative; Shepley, Bullfinch, Richardson & Abbot, and a group of eight architects who did the Eastgate Apartments on Memorial Dr. in Cambridge.

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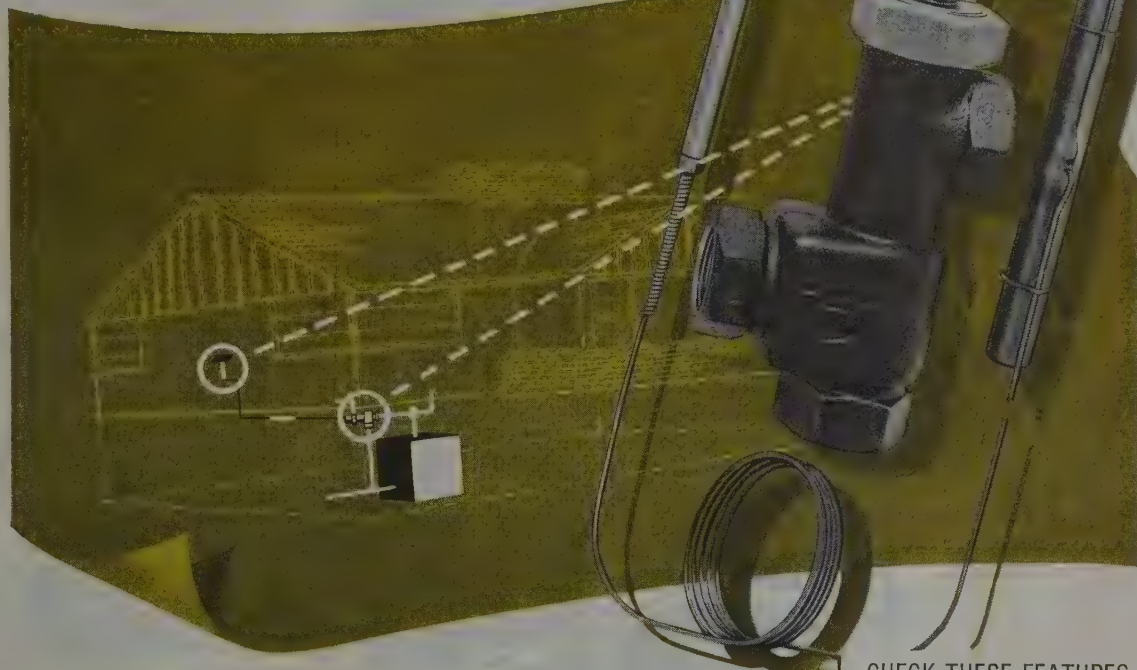
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Weatherbrain Control's outdoor bulb senses changes in outside temperature and responds instantly by supplying the exact amount of heat to keep room temperature right where it should be! And because it is entirely mechanical in operation with no expensive, complicated electronic circuits, Weatherbrain Control costs less and is easily installed. See your Detroit wholesaler or write us for bulletin No. 254.

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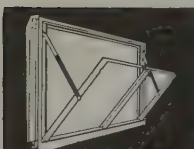
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LETTERS

ON BEHALF OF FHA

Sirs:

My heartfelt thanks for your courageous editorial (H&H, May '54).

There can be no question but that President Eisenhower was not fully advised of all of the facts, and I sincerely hope that the administration is now aware of the damage done not alone to the homebuilding industry but to the entire economy of the country.

It is imperative that immediate steps be taken to restore faith and confidence in the integrity of the homebuilders and the Federal Housing Administration employees, and in the basic philosophy underlying its system of mortgage insurance.

E. M. SPIEGEL, *past president, NAHB*
New York City

Sirs:

This is a belated letter and long overdue. I write very few fan letters. Most of my correspondence consists of what I call constructive criticism. I want this to be a fan letter and to tell you that I think you did a remarkably good job.

It was authentic; it possessed statesmanship; and it placed things in their proper proportion. All in all, a courageous and forward-looking job.

PHILIP M. KLUTZNICK
Chairman of the Board
American Community Builders
Park Forest, Ill.

Sirs:

As your editorial points out, it is incredible that an administration would make so many mistakes in such a short period of time, when it is so apparent that all of them could have been avoided.

I hope that every member of Congress reads your editorial. I wish to compliment you on taking a position with which everyone who understands the problem will completely agree.

PAUL L. BURKHARD, *second vice president*
NAHB
Washington, D.C.

Sirs:

I am strongly in sympathy.

I like Ike all right, but I hope he has the guts to make public that Hollyday and his ousted cohorts are strictly in the right, and that a few of his advisers threw him a curve.

JOHN T. SLOAN JR., *manager*
Mortgage Loan Dept.
Robert A. Cline, Inc.
Cincinnati

Sirs:

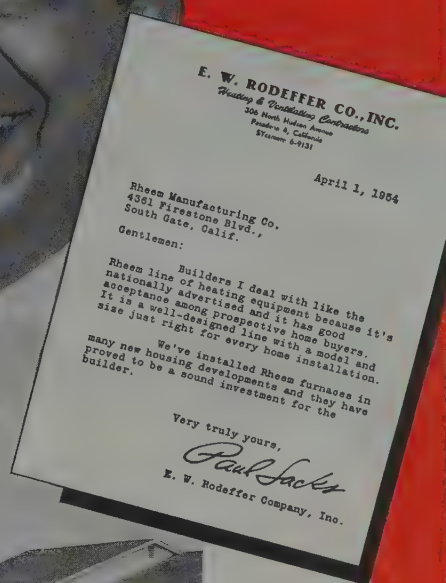
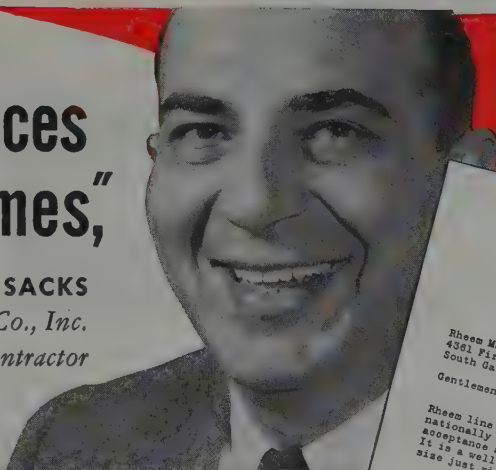
For myself and my associates I wish to express to you our very sincere gratitude for your vibrant defense of the FHA and its personnel.

CHARLES J. McCABE, *state director, FHA*
Providence, R.I.

continued on p. 54

"Rheem Furnaces Help Sell Homes,"

Says **PAUL SACKS**
President of E. W. Rodeffer Co., Inc.
Pasadena Heating Contractor



A section of Whittier Highlands Estates in which Rheem forced-air furnaces have been installed in more than 200 homes by the E. W. Rodeffer Co., Inc., for Herbert B. Shapiro, prominent California home builder.

You Can Profit by Installing Rheem Heating Equipment in Your Houses

You can make more sales faster by installing Rheem heating equipment in the homes you build says Paul Sacks. Read what he has to say:

"Builders I deal with like the Rheem line of heating equipment because it's nationally advertised and it has good acceptance among prospective home buyers. It is a well-designed line with a model and size just right for every home installation.

"We've installed Rheem furnaces in many new housing developments and they have proved to be a sound investment for the builder."

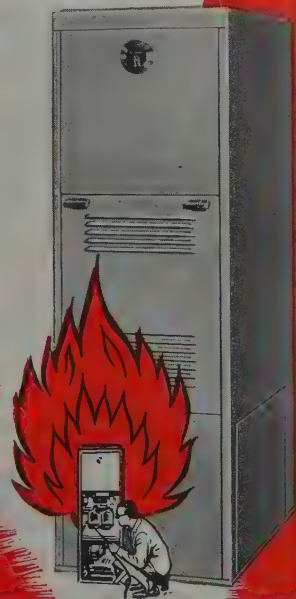
Get all the facts about the Rheem "Fire-Tested" Furnace line. Let your Rheem Dealer show you how Rheem heating equipment will help *you* sell *your* homes quicker and save you money. For complete details write the Rheem regional office nearest you.



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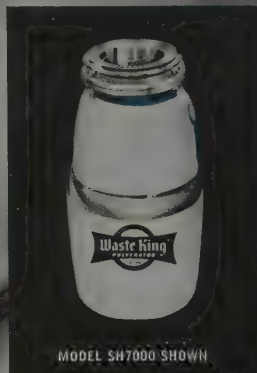
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LETTERS continued

Sirs:

The editorial shows a thorough knowledge of the necessity of restoring confidence in the FHA.

JAMES C. MORELAND, state director, FHA
Chicago

Sirs:

The forthright stand taken by your publication deserves the commendation of the entire homebuilding industry.

A prosperous homebuilding industry will assure full employment and a smooth leveling out of our economy.

FREDERICK C. KRACKE, executive vice president
General Contractors Assn. of
Contra Costa County, Inc.
Walnut Creek, Calif.

Sirs:

Under the 608 program, the owner of 500 units, in a case with which we are acquainted, began negotiations for land, plans, appraisals, insurance fees during the early summer. He received his bids during August, planning to get under construction in September. After the usual delays, it was the following April when work commenced.

He then found a seasonal slack and was able to secure new contract bids that made a saving of approximately 8%. This is being called a "windfall." Had the seasonal slack been reversed, and/or prices risen, under the free-enterprise system he would have had a loss of perhaps thousands of dollars spent on land, plans, appraisals, application fees, etc. I do not see any guilt in this transaction.

S. JOS. HUNT, president
Hunt Construction Co., Inc.
Palmdale, Calif.

Sirs:

I am confident that it is the best informed, the most authoritative piece of writing that has been done on the subject. I asked myself, when I had finished reading, what possible angle you had overlooked, and I cannot think of one that would not be fragmentary or trivial. I even thought the layout contributed a great deal.

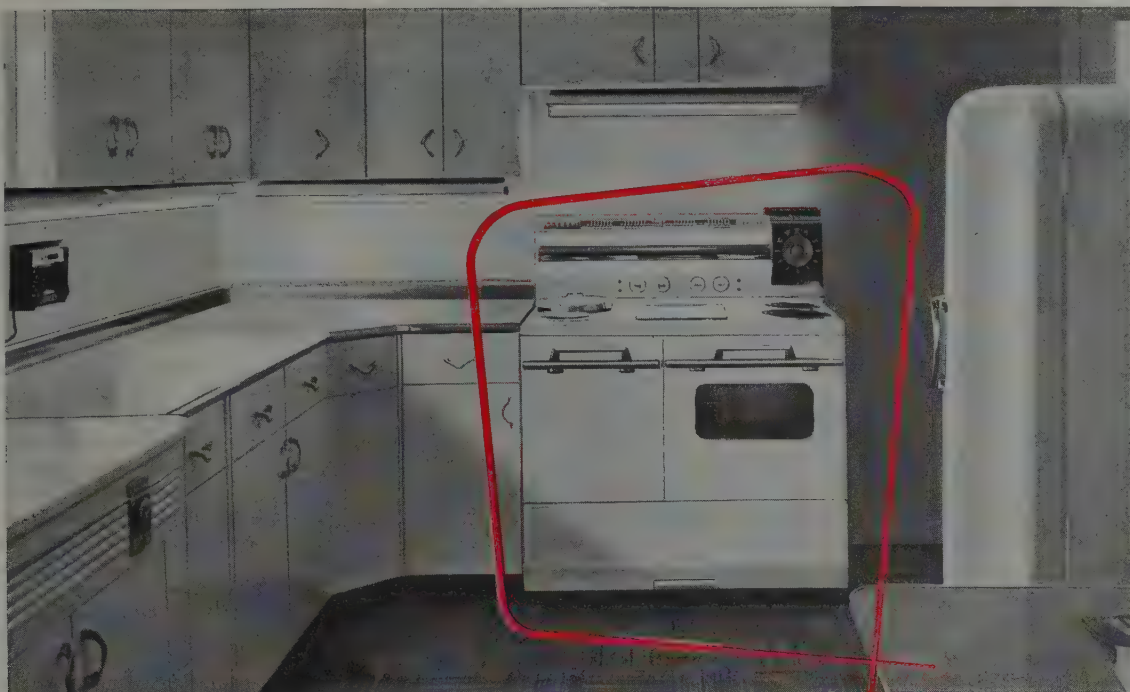
GEORGE McMILLAN
Aiken, S.C.

Sirs:

I am a member of the National Mortgage Bankers Association FHA Committee, and thus very much interested in this problem. I have never been so shocked and amazed as I was when I learned that Guy Hollyday's resignation had been demanded as a result of the "scandals." It is extremely difficult to comprehend that an intelligent executive department would so completely "miss the boat." Firing Hollyday is the equivalent of firing the Chief of Naval Operations because a destroyer went aground on a Pacific island.

Your editorial sums up the whole story. I particularly like your statement of the four

continued on p. 58



This kitchen by builder Leon R. Kytchen is planned to eliminate drudgery. It includes plenty of cabinet space and a food waste disposer unit, as well as a refrigerator and *Electric Range*—so that the homemaker can be modern . . . cook **ELECTRICALLY!**

Here's how homes really sell



Builder Leon R. Kytchen of Roanoke, Virginia, builds about fifty homes a year in various price brackets. He says, "I believe in installing the latest electric equipment—and that includes modern, automatic *Electric Ranges*. When a customer sees a home equipped to cut kitchen drudgery, she's more likely to buy it."

Don't underestimate the power of the homemaker. She must be practical when choosing the home she'll live in. She wants efficiency as well as beauty in the home she buys.

That's why an *Electric Range* in the kitchen really helps to sell the house. Women know that it means economy and ease of operation, a clean kitchen as well as a cool one. They realize that here is cooking equipment at its best!

Install *Electric Ranges* in the homes you build, and like builders everywhere you will find them easier to sell.

BE MODERN...

Cook Electrically!

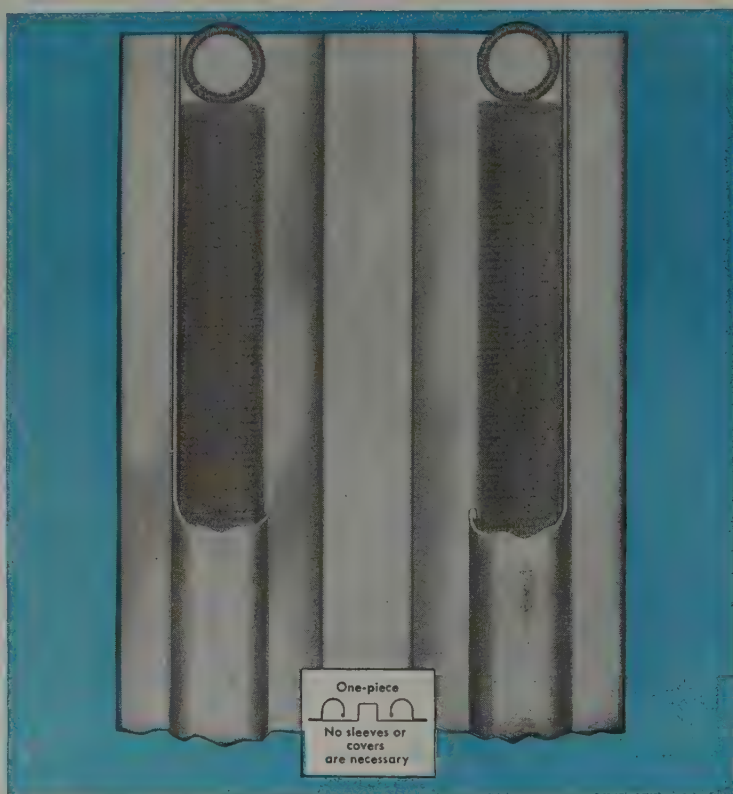
More builders every day
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LETTERS *continued*

points of facts of what FHA has accomplished. Congratulations.

SILAS O. PAYNE, *secretary*
Marble Mortgage Co.
San Francisco

Sirs:

The recent widespread adverse publicity on FHA was most unfortunate, but we are confident that the editorial will clarify much of the apparent misunderstanding and confusion.

EDWARD C. ROBERTSON, *state director, FHA*
Albuquerque, N.M.

Sirs:

It is the fairest, finest and most concise approach to the subject... terrific.

On behalf of myself and our local chapter of the TAHB, I would be grateful if we could purchase about 150 copies of this to mail to all of our members and local congressmen and senators, as well as to all local newspapers or any other persons who might be interested.

M. DAN DALIS, *president*
Tidewater Assn. of Home Builders, Inc.
Norfolk, Va.

VALUE OF LANDSCAPING

Sirs:

Your attention to professionally planned outdoor space for residential design (H&H, May '54) was a most welcome contribution to an understanding of the value of landscape architectural services. The need for a good landscape architect is important in the field of multiunit housing where the problems are more complicated and the solutions need greater skill.

JACK NAZAR, *chairman*
Committee on housing
American Society of Landscape Architects
Watertown, Mass.

FRIGHTENED INDUSTRY

Sirs:

If any manufacturer of automobiles, appliances or television sets produced designs as inept and as completely out of sympathy with the consumer's basic needs as does the average homebuilder, he would simply not survive. Many house-design concepts introduced by imaginative and forthright architects 15 to 20 years ago, proved valid in use, are even yet either studiously avoided or timidly tried by an industry frightened to death by the monstrous bugaboo known as "sales appeal."

America has many contemporary scholars of housing who display a keen insight into the total housing picture, its ills and its possibilities. But the industry has chosen to counter facts and sound principles with wishful thinking, rationalized by prejudiced viewpoints, substantiated by half-truths and distorted statistics.

NORRIS M. GADDIS, *ALA*
Eugene, Ore.

continued on p. 66

YOUR BLUEPRINTS ALLOW FOR A PLUG-IN THIS BIG?

DO THE PLANS of the houses you build call for *wiring systems* big enough to power an ever-growing number of modern appliances? Do they specify *large enough wires* to carry full loads of current; *Plenty of circuits* for both large and small appliances; *Sufficient outlets* to feed current to every spot where it's needed?

Those are the things you must "blueprint" if you plan to satisfy fully your electrically-minded homebuyers of today. They are the features that mean extra convenience, extra comfort and extra safety in the homes you sell. They mean *truly modern* homes . . . *fully-powered* not only for today, but also for *tomorrow*!

An extra expense for you? *Very little* in the light of what *you* (not to mention your customers!) get out of adequate home wiring. It definitely boosts your reputation as a builder of quality homes. It certainly makes houses quicker and easier to sell. *In fact, no one feature in today's homes returns the builder so much for so little!*

So . . . build your homes with a sharp eye on the layouts and specifications of their wiring systems. You'll find it pays! Kennecott Copper Corporation, 161 East 42nd Street, New York 17, N. Y.

IMPORTANT NOTE: Watch those Kennecott national advertisements featuring adequate wiring in the SATURDAY EVENING POST and THIS WEEK magazines. They're helping you sell the sound, full-fledged wiring you build into your houses!

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No matter how well built
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you use...

if its performance depends
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it can be no better
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which it is equipped.



QUALITY HAS ALWAYS BEEN THE WHITE-RODGERS POLICY...

If you had spent 17 years learning how to build the very best product in your industry you would then find yourself expressing your philosophy much as we have done in the panel above.

White-Rodgers has never—and never expects to—build anything but the finest controls that can be made. You probably already know this, but we feel it worth emphasizing at this stage in our industry's development.



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Controls FOR REFRIGERATION • HEATING
AND AIR CONDITIONING

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LETTERS *continued*

PLAGIARISM

Sirs:

In our suit against Architect William Bray and Bristol Development Co., *et al*, they claim that our house has been published extensively



Houses by Bray and May. Which is which?

in the leading magazines and therefore theirs is not a copy.

In listing the publications two issues of one of your competitor magazines were mentioned and *HOUSE & HOME* was mentioned 28 times. Shows where the power lies as to contemporary architecture.

We have just received a letter from Frank V. Mayo of the Committee of Architectural Practice in which he states that we will be hearing from Mr. Parker, advisory chairman to the Committee on Contract Documents of the AIA, that Mr. Parker will agree strongly with us in bringing precedent to bear against plagiarism in architecture. Mr. May expressed hope that the institute will follow through with us.

Enclosed are two pictures, one of the Bray house and one of our house. Can you tell which is which?

CLIFF MAY
Los Angeles

PINKISH PROBLEM

Sirs:

What, pray tell, is "pinkish green" (cut line, p. 99, April issue)? Could you please get out your water colors and demonstrate because we are completely mystified and can't believe it exists except in pointilism or spots before your eyes.

HILLARY BISSELL
Klise Manufacturing Co.
Grand Rapids, Mich.

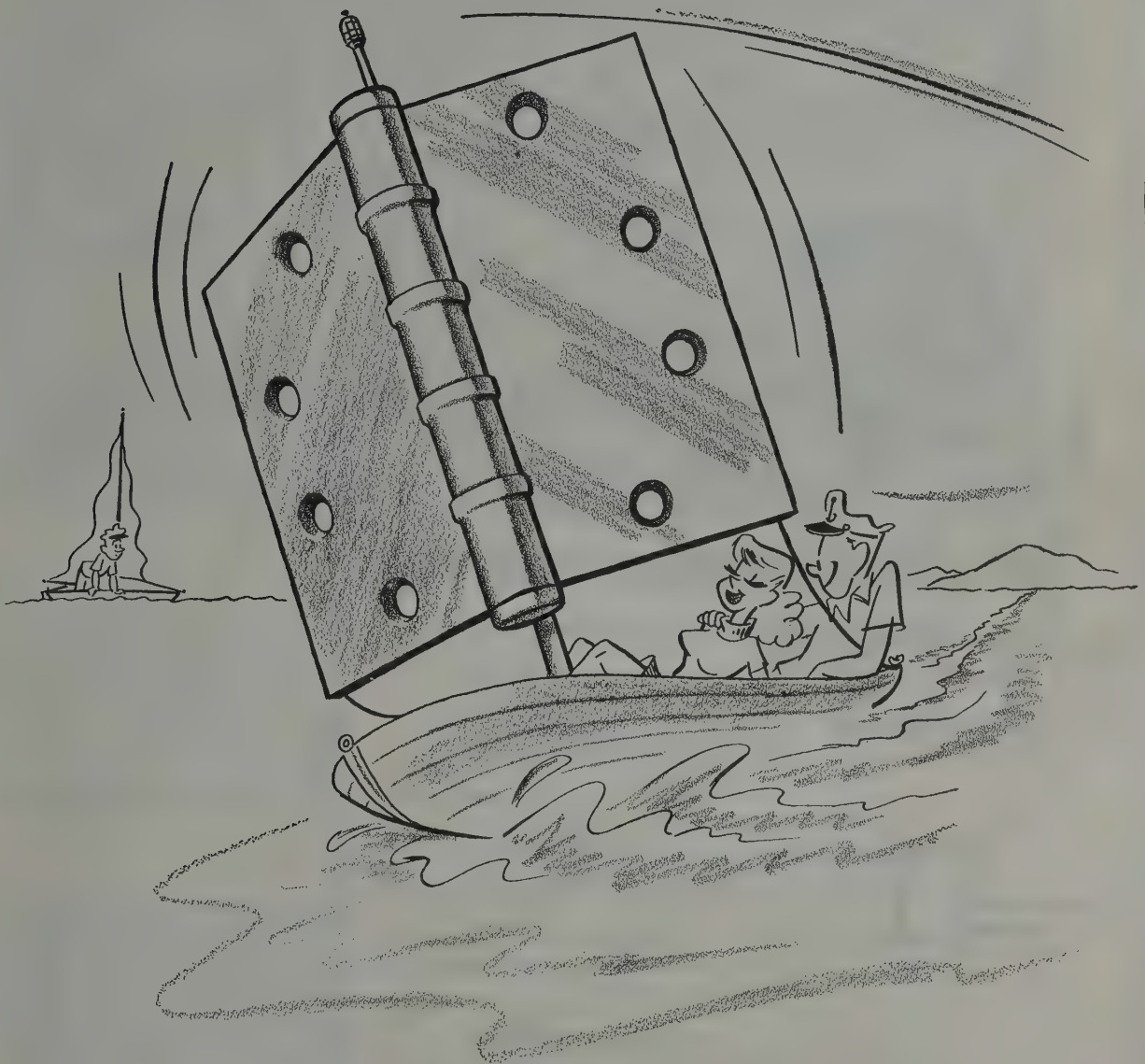
• Mr. Yeon told H&H's researcher that it was "pinkish green." A study of color transparencies suggests that adding a drop of bitters to a not-very-dry Martini would closely approximate the shade—ED.

Sirs:

We have heard some fancy names for colors prior to this one, including sky-blue pink, but nothing that makes as little sense to us as "pinkish green." Are we old-fashioned?

JOHN CALVIN STEVENS II, AIA
Stevens & Saunders
Portland, Me.

continued on p. 72



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to the Builder

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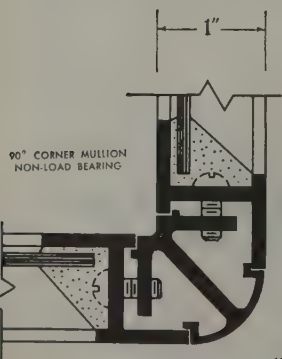
TO THE MORTGAGE LENDER

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TO THE ARCHITECT

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PLAINWELL, MICHIGAN

SUBSIDIARY OF MUELLER BRASS COMPANY — PORT HURON, MICHIGAN

LETTERS continued

AIR CONDITIONING

Sirs:

A fine job of presentation. I am not sure you have sufficiently emphasized the importance of shading devices, including trees, and the use of white paint to reduce the air-conditioning load, but this is a minor point.

R. S. DILL, chief

Heating and Air Conditioning Section
National Bureau of Standards
Washington, D. C.

Sirs:

The air-conditioning article (H&H, March '54), in my opinion, will prove most helpful in the merchandising and sale of air-conditioning equipment because it emphasizes the necessity of planning the house around air conditioning. And when this is done, air conditioning is more efficient and less expensive. Costs are probably our main sales problem.

L. C. ROBERTS, advertising director
Lone Star Gas Co.
Dallas

Sirs:

Again, (H&H, March '54) you have succeeded in putting the facts into an understandable and interesting form—the kind of information which establishes confidence in air conditioning as a known commodity.

Another real contribution, valuable to the homebuilder and the equipment manufacturer as well.

KEITH DAVIS

Bryant Air Conditioning Div.
Affiliated Gas Equipment, Inc.
Cleveland

Sirs:

One of the most practical, earthy, and informative stories on the subject of residential air conditioning that I have seen in any magazine, including those excellent articles that have appeared in previous issues of H&H.

C. W. NESSELL

Minneapolis-Honeywell Regulator Co.
Minneapolis

Sirs:

Your pounding away in behalf of good design, shading and adequate insulation is ultimately going to keep a lot of people happy with their air-conditioned homes. We think that's essential if residential air conditioning is going to grow at the rate predicted.

FRED H. SIDES, secretary
National Mineral Wool Assn.
New York City

Sirs:

We do want to applaud you for your excellent air-conditioning article.

J. L. MCGARRY, merchandising dept.
Airtemp Div., Chrysler Corp.
Dayton, Ohio

continued on p. 78

DRIVE-IN SHOPPING CENTER

Builders-Designers Hail ZONOLITE[®] for all Types of Light Construction



Arden Town Shopping Center in Sacramento, California used Zonolite plaster throughout ... affords greatest possible fire protection. Plasterers save time in preparation and cleanup with Zonolite. No messy sand pile to slow up jobs.



Parkview School, New Bedford, Ind. Use of Zonolite Acoustical Plastic in all classrooms, corridors and auditorium, combines maximum fire protection with 0.65 noise reduction, at rock-bottom cost.



Charles J. Schuh Bldg., St. Petersburg, Fla. Architect Wm. B. Harvard adds insulation value, fire safety, sound control with Zonolite plaster on walls and ceilings, Zonolite insulating concrete on the roof, and Zonolite Acoustical Plastic on ceilings.



Residence and Office, Johnson City, Tennessee. Zonolite concrete under radiant heating coils provides maximum heating efficiency, low heating cost for architect, Alfred H. Abernathy.

ZONOLITE AGGREGATES ADD ✓ INSULATION VALUE ✓ FIRE SAFETY ✓ ACOUSTICAL BENEFITS

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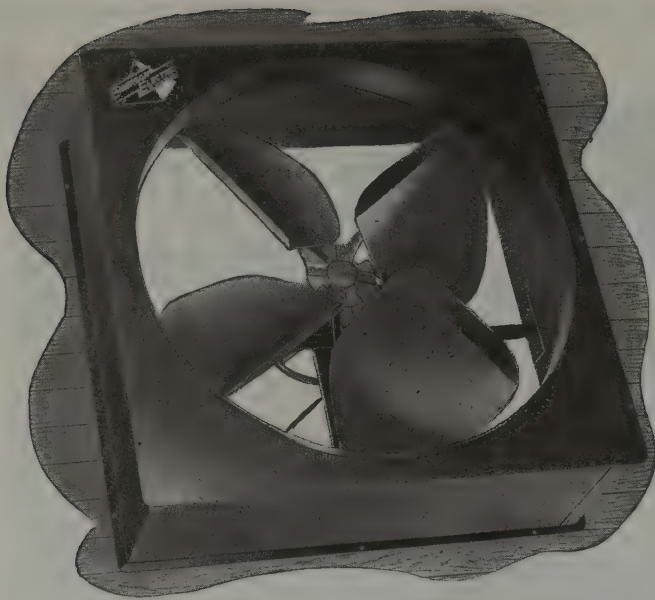
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Sirs:

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JOHN C. GARCEAU, *director*
Advertising and sales promotion
York Corp.
York, Pa.

Sirs:

A wonderful job. We have ordered a quantity of reprints for our sales organization.

JACK KICE
Coleman Co.
Wichita, Kans.

Sirs:

Congratulations. This is the finest report on air conditioning we have ever read.

W. E. McLEOD, *president*
Central Air Conditioning & Heating, Inc.
Nashville, Tenn.

FLW

Sirs:

Once again Frank Lloyd Wright has brought a refreshing point of view to the housing problem (H&H, March '54). Only your editorial is slanted the wrong way. In my opinion it ought to have been, "What to do with a problem location."

Here the owner was, stuck with this crummy little promontory on the Pacific, surrounded by water and hills, etc. Now the average architect probably would have brought a defeatist attitude to the problem, possibly have oriented things so that people would catch a glimpse of the sea occasionally.

Not Mr. Wright. As you point out, with the interesting elbow-to-elbow seating around the perimeter of the room, "No matter where you sit, you face away from the overpowering view and glare toward the warm, intimate cave of the fireplace." I do not suppose anyone can forestall the social rebel who has to squint out to sea, but Mr. Wright has at least contrived to make him kneel on the bench and look backward.

As I thought over his solution, I was impressed at how architectural cycles come full circle, not that I mean to suggest there is anything derivative in Mr. Wright's solution. Take my old Connecticut farmhouse, for example. By use of small windows and swinging the house around properly, the unknown builder was able to avoid any prospect of hill or valley. However, there are warm, intimate caves in every room, everywhere you look, which spare one from being troubled by that occasional shaft of light. The parallel is probably explainable only in terms of authentic native genius, untutored but intuitive.

E. H. WALWORTH JR.
New York City

continued on p. 82



WHICH GLASS

Is Best for Air-Conditioned Buildings?

Architects and designers are familiar with the relative values of single glass and double glass in respect to winter heat savings and comfort. The growing importance of air conditioning emphasizes the need for careful selection of the right glass in respect to differences in heat gain as well. Demand for large areas of glass for light and view makes this especially necessary.

The American Society of Heating and Ventilating Engineers recently concluded a seven-year study of heat gain from solar and sky radiation. With the facts from this study, it is now

possible to estimate quite accurately the comparative heat gain with various types of glass. The figures for comparison are based on a measure of hourly heat gain, averaged over the day. This has become the preferred method for calculating the cooling load.

Table 1 shows the total BTU heat gain in an hour for each square foot of glass in windows. The figures include direct solar radiation, sky or diffuse radiation, heat transfer due to differences between indoor and outdoor temperatures, and heat gain due to increased glass temperatures when the sun is shining on it.

TABLE 1—Cooling load BTU per sq. ft. hr. (L-O-F Glassed)
Design day—August 1—Design temperature 95° F—75° F

Lat.	Kind of Glass	North	East	South	West
24° N	D. S. Sheet	21.2	48.3	18.8	48.3
	¼" Plate	20.4	46.0	18.1	46.0
	¼" Heat Absorbing Plate	17.5	35.6	15.8	35.6
	Thermopane—D. S. Sheet	15.5	39.9	13.7	39.9
	Thermopane—¼" Plate	14.7	36.6	13.0	36.6
	Thermopane—¼" Heat Absorbing Plate	11.8	26.8	10.6	26.8
32° N	D. S. Sheet	19.8	49.0	24.6	49.0
	¼" Plate	19.1	46.7	23.7	46.7
	¼" Heat Absorbing Plate	16.5	36.1	19.8	36.1
	Thermopane—D. S. Sheet	14.5	40.5	18.0	40.5
	Thermopane—¼" Plate	13.7	37.1	16.9	37.1
	Thermopane—¼" Heat Absorbing Plate	11.1	27.2	13.4	27.2
40° N	D. S. Sheet	19.4	50.3	34.0	50.3
	¼" Plate	18.9	48.0	32.6	48.0
	¼" Heat Absorbing Plate	15.8	37.0	26.1	37.0
	Thermopane—D. S. Sheet	14.4	41.7	26.5	41.7
	Thermopane—¼" Plate	13.6	38.2	24.8	38.2
	Thermopane—¼" Heat Absorbing Plate	10.9	27.9	18.4	27.9

For every 1°F increase in outdoor design temperature or decrease of indoor temperature, add 1.07 to single sheet glass values, 1.06 to single plate or heat absorbing values and 0.61 to values for *Thermopane*.

Conclusions from this table

1. *Thermopane* insulating glass will save in over-all operating costs of the air-cooling system.
2. *Thermopane* will usually reduce the size and cost of the equipment required and the reduction will be substantial where Heat Absorbing *Thermopane* is used.
3. Heat Absorbing *Thermopane* is of greatest value on east and west exposures. Its value is also important on south exposures.
4. Shading of east and west windows is highly desirable. An overhang or other shading device will exclude at least some solar or sky radiation.
5. The desirability of shading of south windows increases as latitude increases.
6. Heat gain through north windows is almost constant for all latitudes in the U. S.

LET'S TAKE AN EXAMPLE:

Assume a small building at 40° N latitude, with the following glass areas:

North wall 140 sq. ft. South wall 147 sq. ft.
East wall 60 sq. ft. West wall 52 sq. ft.

Here are the heat gain comparisons for the glass:

TABLE II

Kind of Glass	North	East	South	West	Total	Reduction Over Single Sheet
D. S. Sheet	2716	3018	4998	2616	13348	—
¼" Plate	2646	2880	4792	2496	12814	4.0%
¼" Heat Absorbing Plate	2212	2220	3837	1924	10193	23.6%
Thermopane—D. S. Sheet	2016	2502	3895	2168	10581	20.7%
Thermopane—¼" Plate	1904	2292	3646	1986	9828	26.3%
Thermopane—¼" Heat Absorbing Plate	1526	1674	2705	1451	7356	44.9%

Shading—This is important with any type of glass. Taking the building referred to above as an example, complete shading of south windows from March 21 to September 21 will further reduce the total heat gain through glass, varying from 16.4% to 19.4%, according to the type of glass used.

WHAT ARE THE SAVINGS?

TABLE III

Kind of Glass	Combined Glass and Shade Reduction	Total Reduction in Cooling Load
D. S. Sheet	18.6%	.207 ton
¼" Plate	21.5%	.241 ton
¼" Heat Absorbing Plate	40.0%	.403 ton
Thermopane—D. S. Sheet	40.3%	.403 ton
Thermopane—¼" Plate	45.7%	.452 ton
Thermopane—¼" Heat Absorbing Plate	62.3%	.607 ton

Summary—This example is for a *small* building. Larger savings, of course, will accrue in reduction of heat gain through larger glass areas. The example does show how the right glass can materially reduce the size of the air-conditioning unit required and decrease the cost of operation for the life of the building... in addition to the winter heat savings and comfort which *Thermopane* provides.

Climate need not materially hamstring your design freedom, as far as glass is concerned. Put windows where you want them, using the versatility of glass to meet conditions of sun and climate. If you desire further information on heat gain or heat loss as it pertains to glass, write to:



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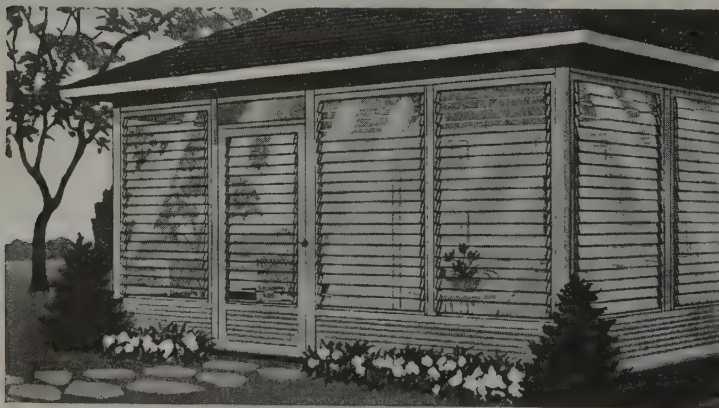
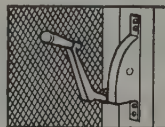
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LETTERS continued

Sirs:

Even though you call Wright's oceanside house a "geometrical jigsaw puzzle" I can't see anything in the design that couldn't be cut with a table saw and put together in a jig if it were all wood.



For prefab houses: triangular panels plus the Wright manner.

Taking a little (less is more I've heard) from Wright, a little from Fuller, a little from Lu-Re-Co and others, I think we have the best idea for prefabricated houses right in front of our noses.

I think what you call "a planning lesson from Frank Lloyd Wright" is also a lesson in prefabrication handed to us by the master on a silver platter, but we can't see the meat for the beauty of the dish.

Triangular panels for the roof, and for the walls in some cases to supplement rectangular panels, plus the Wright manner of [design construction] offers the *flexibility* needed in prefab houses.

GEORGE W. MOLBERG, *future architect*
Duluth, Minn.

PLASTICS

Sirs:

Our thanks for the many informative and interesting articles on new products. We hope that you will continue your good work in research in the field of plastics (H&H, Feb. '54).

DAN SAXON PALMER, AIA
Los Angeles

MORE WOOD

Sirs:

Your article on millwork (H&H, April '54, p. 140) points out definitely that progressive approach in millwork design is one phase of a program to a better and greater use of lumber in the house.

R. A. SCHAUB
Northern Indiana Lumber & Coal Co.
Whiting, Ind.

ERRATUM

Sirs:

In your May HOUSE & HOME (p. 135, lower right) you show a house which you credit to H. J. Rolfs, Washington D. C., as builder.

Please be advised that this house was built by the Merrimack Construction Corp., Bethesda, Md., as one of a group of 24 homes.

ARTHUR P. BECKER, AIA
President, Merrimack Construction Corp.
Bethesda, Md.

• HOUSE & HOME regrets the Merrimack Construction Corp. did not receive due credit for its houses.

Ohio Builders Talk "straight-from-the-shoulder" on Home Heating Equipment

Edward L. McVey
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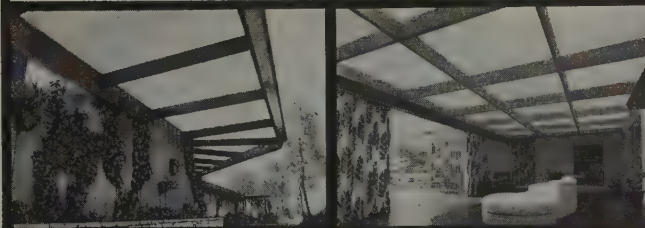
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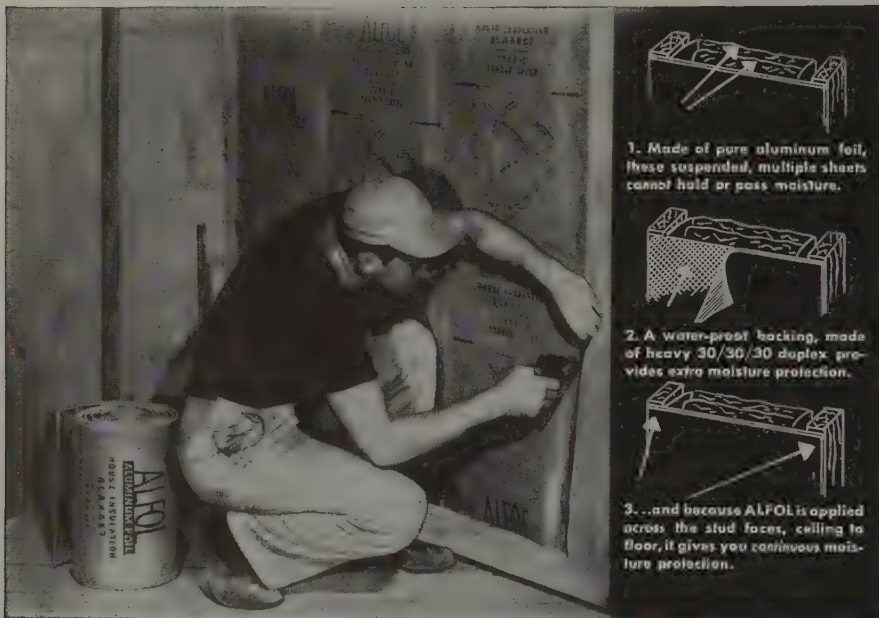
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EVENTS

Fall Architects' Trek to Spain, Italy, Greece, Egypt and France, Sept. 4-Oct. 7, under the leadership of Edmund Purves, FAIA, from whom details can be obtained at AIA headquarters: 1735 New York Ave. N.W., Washington, D.C.

National Home Furnishings Show, Sept. 9-19, 71st Regiment Armory, 34th St. and Park Ave., New York.

Illuminating Engineering Society, annual meeting, **Sept. 13-16**, Chalfonte-Haddon Hall Hotel, Atlantic City, N.J.

Pennsylvania Society of Architects, annual meeting, **Sept. 16-19**, Great Lakes cruise on the *South American*, leaving from Erie, Pa.

Midwest Conference of Building Officials and Inspectors, annual conference and business meeting, **Sept. 20-22**, Hotel Commodore Perry, Toledo, Ohio.

Gulf States District, American Institute of Architects, regional conference, **Sept. 26-28**, Marion Hotel, Little Rock, Ark.

California Council of Architects, annual convention, **Sept. 30-Oct. 2**, at Hoberg's, Lake County, Calif.

National Retail Lumber Dealers Exposition, **Oct. 2-10**, Kingsbridge Armory, New York.

National Hardwood Lumber Assn., annual convention, **Oct. 5-7**, Rice Hotel, Houston, Tex.

Pacific Coast Building Officials, annual business meeting, **Oct. 5-8**, Denver, Col.

National Assn. of Housing and Redevelopment Officials, annual meeting, **Oct. 11-14**, Bellevue-Stratford Hotel, Philadelphia, Pa.

New York State Assn. of Architects, annual convention, **Oct. 21-23**, Lake Placid Club, Lake Placid, N.Y.

North Central District, American Institute of Architects, regional conference, **Oct. 28-30**, Kahler Hotel, Rochester, Minn.

New England Council of Home Builders, first annual convention, **Oct. 29-30**, Statler Hotel, Hartford, Conn.

Fifth Annual Builders Competition for the best homes for families with children is being sponsored by *Parents' Magazine*, and includes special awards to dealer-builders of prefabricated houses. Open to homes built and sold in the US from July, 1953 through June, 1954; entries must be in by Aug. 2nd. For details address Builders' Competition, *Parents' Magazine*, 52 Vanderbilt Ave., New York, N.Y.

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98 HOT-WEATHER HOUSES

The 21 houses of Philip Hiss' Lido Shores, Fla. development, designed by Architects Ralph and William Zimmerman and Paul Rudolph and Philip Hiss Associates, Inc., solve hot-weather problems with breezeways, shading devices, screening and stilt plans.

Architect Philip Clark Fisk shows in a Honolulu house how to open living rooms to the outdoors on one side, shelter them from prevailing breezes on the other.

At Wellfleet on Cape Cod, Architect Olav Hammarstrom stretches the season by combining a breezeway living room with an enclosed sleeping wing.

Speculative house on the Jersey shore is designed by Leo Wou with six screened outdoor rooms to supplement the compact interior.

In his own studio and in a group of vacation houses at Wellfleet Architect Serge Chermayeff uses stock materials, braced to the wind, and brilliant colors in "fragmented" designs.

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128 LUMBER DEALERS, FIRST IN A SERIES OF ARTICLES

Clarence Thompson of Champaign, Ill. packages materials and services for 5- to 25-house builders, at savings which can keep them in business.

134 HOUSE WITH A LIVING ROOM WHICH IS TEN ROOMS IN ONE

Architect A. L. Aydelott carves a series of living spaces out of the living wing of a handsome house at Bristol, Tenn.

140 THE HOUSES YOUR CUSTOMERS WANT

What members of the building industry can learn from "Better Homes and Gardens" five best-selling Five Star houses published since Jan. '52. Designed by Architect Goodwin B. Steinberg, Alfred Levitt, Diedrich F. Rixman, AIA, Ralph Fournier for Burton Duenke, and Howard T. Fisher & Associates.

146 INDUSTRY BUILDS A CITY

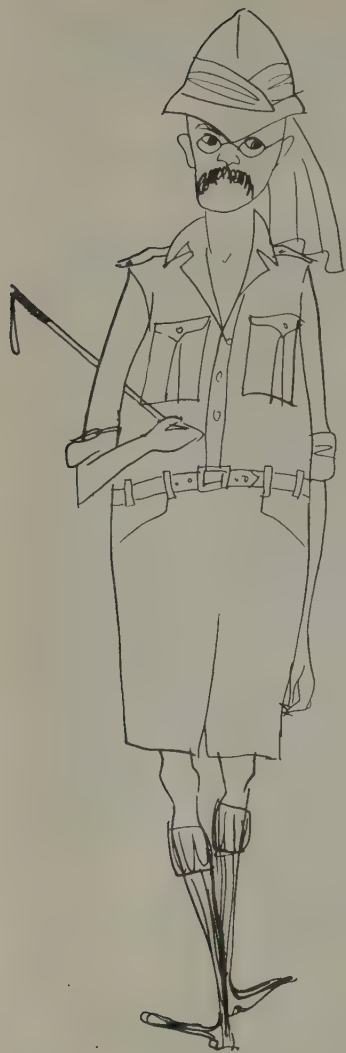
In Canada's Don Mills, 17 architect-builder teams are packing profitable ideas into a town where 15,000 people will soon live near their jobs.

152 DESIGN STANDARDS

Details for builders and architects of builder houses by Harold Sleeper, FAIA. This month: plank-and-beam construction, part I.

162 NEW PRODUCTS

200 TECHNICAL PUBLICATIONS



When Rudyard Kipling came to New York in August of 1896, he stuck his head out of the window on his first morning in town, then dressed himself as any intelligent Anglo-Indian would dress for a temperature of 98° in the shade, and marched down Fifth Ave. in shorts. He also wore a pith helmet. The story may be apocryphal, but it is too late for Mr. Kipling to deny it. Anyway, the effect upon the populace must have been electrifying.

In those days when Americans stepped out of their houses on a scorching New York, Kansas City, Houston, Chicago or St. Paul summer day, they carefully dressed up like Londoners—not like Londoners living in Bombay (whose climate, in July, is like that of New York), but like Londoners living in Berkeley Square. Result: at best, total exhaustion; at worst, sunstroke and death.

And still today when Americans build houses in this weird climate of ours, they build English houses, or German houses, or French houses, or (when it gets *really* hot) a Spanish house or two. They then sit down in them and, for one third of the year, wish they were someplace else.

Most Americans, that is, but by no means all. On the next 26 pages you will see a new kind of American house—a house that picks up where Kipling left off, a house designed with the know-how of the South Sea Islanders, a house cooled by the breeze, shaded by overhangs and parasol roofs, screened against bugs. It is a house that makes as much sense in Boston as do its predecessors in Bali and the rest of the tropics.

So, if you can find a cool place in which to sit down for a few minutes, you might like to spend that time reading the next 26 pages on . . .

how to build cool houses for



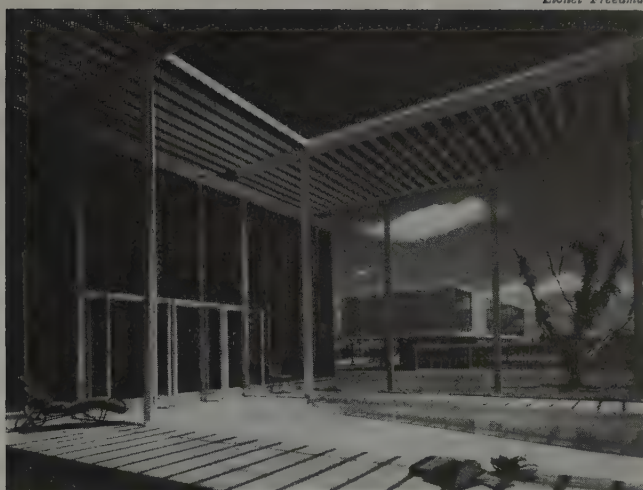
Steinmetz

Hiss house, Lido Shores, Fla. (see p. 108)

The hot and humid American summer

All the houses shown here are very special houses for special climates. Most of them were planned for all-year hot weather in the tropics. But all of them dramatize sound basic ideas that should be reflected in all houses wherever Americans—north, south, east or west—must live in 90° heat.





Umbrella house by Paul Rudolph, architect. Lido Shores, Fla. (see p. 103)

Fifty years after Rudyard Kipling put on his shorts in sizzling Manhattan,

a young Connecticut anthropologist named Philip Hiss went down to the South Seas to explore, photograph, take notes and write a couple of books. He had long been interested in building, so it was natural for him to keep his eyes peeled for any building ideas he might run across in his travels. He was well-rewarded: "The average white man's architecture in the tropics," Hiss said upon returning to the US, "doesn't offer any very good solution to the problems of heat and humidity. Native architecture is often much better . . ."

But the white men in the tropics were not the only ones who did not know how to build. Most Americans, Hiss found, were living in a near-tropical climate for at least *part* of the year—yet few seemed to know the first thing about building houses that would be tolerable under such conditions.

Obviously, the native hut on stilts had to be adapted to modern needs before it would make sense in the US. The question was: how? Hiss thought he had the answer.

And so, while the rest of us were sitting around *talking* about the weather, Hiss went down to Sarasota, Fla. and *did* something about it. If he could build a cool *Florida* house, he decided, he could build a cool house just about anywhere in the US. To explain to local architects what he was after, Hiss took along some of his beautiful photographs of Bali and the other islands (see opposite).

What Philip Hiss has done about the weather is shown on the next 12 pages. In brief, he did what any South Sea Islander would have done: he built his speculative houses at Lido Shores to let in the cool breeze and keep out sun, rain and bugs. His means were logical; the results were extremely handsome. And he demonstrated to people everywhere—**how simple it is to keep cool.**



1949: Williams house, R. & W. Zimmerman, architects



1950: Harris house, Hiss Associates, Inc.



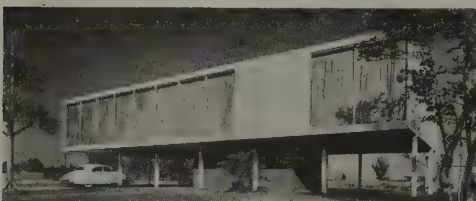
1951: Rental house, Hiss Associates, Inc.



1950: Hiss house, Hiss Associates, Inc.



1952: Severs house, Hiss Associates, Inc.



1953: Hiss studio, Hiss Associates, Inc.



1953: Mathews house, Hiss Associates, Inc.



1954: Umbrella house, Paul Rudolph, architect

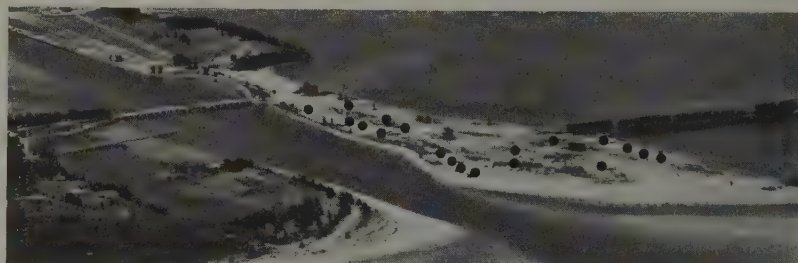
LIDO SHORES:

When Philip Hiss went down to Sarasota six years ago to do something about the weather, all practiced realtors in the area told him to build nothing "different," nothing that involved "educating the public." Hiss promptly did the opposite: he produced houses that were increasingly "advanced" (see left), whose sales depended entirely upon getting people educated to the acceptance of what he knew made sense in a hot and humid climate.

What were his principles? They were quite simple: first, his houses had to be the nearest thing to breezeways. The tropics are blessed with trade winds—so why not use these winds for inexpensive ventilation and cooling? Next, he wanted shade. Solution: deep overhangs, "parasol roofs" and so on. Then there was the problem of bugs—so Hiss enclosed big indoor-outdoor areas with screening. And, finally, there were tropical rains—and these called for deep overhangs, too.

Being a man of considerable taste and erudition, Hiss also insisted upon first-rate architecture throughout. From his earliest, somewhat traditional houses by Architects Ralph and William Zimmerman, down to his latest (Hiss-designed) houses and the Rudolph-designed "umbrella house" (opposite), Hiss has done nothing he need ever regret. His little colony on Lido Shores, on the Gulf, is as fine and diverse an exhibit of modern American architecture as any development in the US.

Lido Shores: almost two dozen
different houses to date



Moreover, it has been a financial success: His "spec houses" were priced to sell from a low of around \$15,000 to a high of about \$60,000 (plus lot), have done just exactly that. And the buyers are no wild-eyed avant-gardists: they are a former vice president of a big US corporation, the owner of a hotel chain, a radio station operator and newspaper publisher, a president of a major engineering corporation and an aviation industry official. In their practical ways, they saw that Hiss had found an obvious, logical and brilliantly effective answer to a very simple problem—namely "how to keep cool in a hot place."

These small pictures show, in chronological order, how Philip Hiss proceeded in setting up his development (about half of his houses are shown). The first houses were somewhat "ranchy"; as they caught on, Hiss became increasingly modern. Today, he is the proud builder of one of the most extraordinary houses in the US—the "umbrella house" designed by Architect Paul Rudolph (shown opposite).

How to keep cool

Photos: Steinmetz;
Lionel Freedman; Burnell

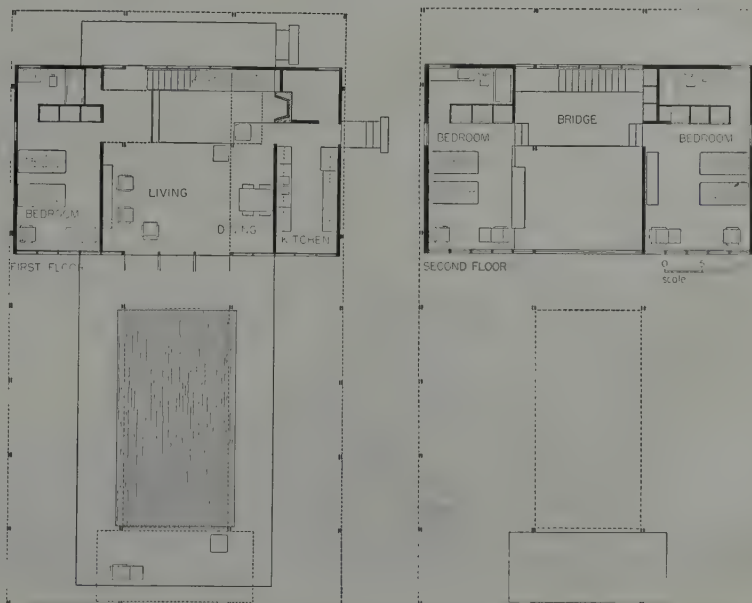


Lionel Freedman

A 3,000 sq. ft. parasol shades this jalousie house and its lot

Lido Shores' most recent addition is this umbrella house by Architect Paul Rudolph. The house proper is a two-story structure, 44' long and 25' deep, containing a dramatic two-story living room at its center and a series of galleries, balconies and connecting bridges around it. These accommodate three bedrooms, kitchen, baths, etc. Front and rear walls are almost entirely of glass jalousies that permit cross-ventilation in every room.

The 3,000 sq. ft. latticework parasol is an entirely separate structure supported on 26 double columns. There is a 2' air space between the parasol and the roof of the house. The purpose of the parasol is to shade the roof, the terraces surrounding the pool, and part of the lot. It is a graceful construction, braced with tie rods, a charming pattern against the sky.







Connecting bridge between two upstairs bedrooms produces low ceiling plane above intimate fireplace corner

How to keep cool

A two-story breezeway is the core of this house

Cool living room is two stories high, looks out across shaded pool

Photos: Lionel Freedman



Solid canopy shades near end of pool. Tie rods and turnbuckles brace the free-standing parasol structure.

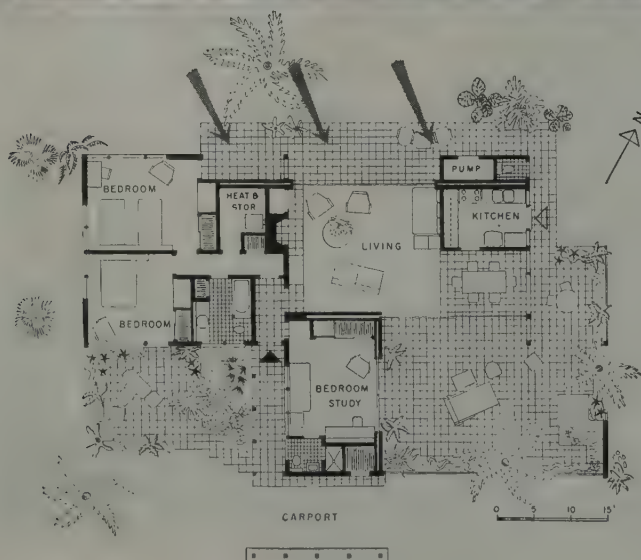
How to keep cool

The breezeway living room is a recurring

Photos: Steinmetz



The Williams house, designed by the Zimmermans, was built in 1949



Architects Ralph and William Zimmerman designed some of the Hiss development's first houses. Like the one shown on this page, these were relatively conservative in appearance; yet the basic principle of the breezeway living room was already present. Screened on two sides, with sliding glass walls for colder days and deep roof overhangs to provide shelter against rains and broiling sun, these living areas reflected Hiss' experience with native building in the tropics.

Three years later, Hiss had grown considerably more daring; the house opposite, which he designed himself, is flat-roofed and strikingly advanced. It was built around a screened patio, and the living area is once again a breezeway. Hiss, by this time, had learned a great deal about the use of fences to insure privacy for his glassy houses and to create additional outdoor rooms.

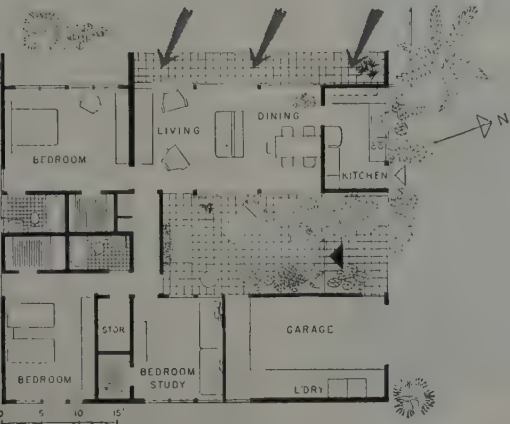
theme at Lido Shores



Structure is post, beam and plank

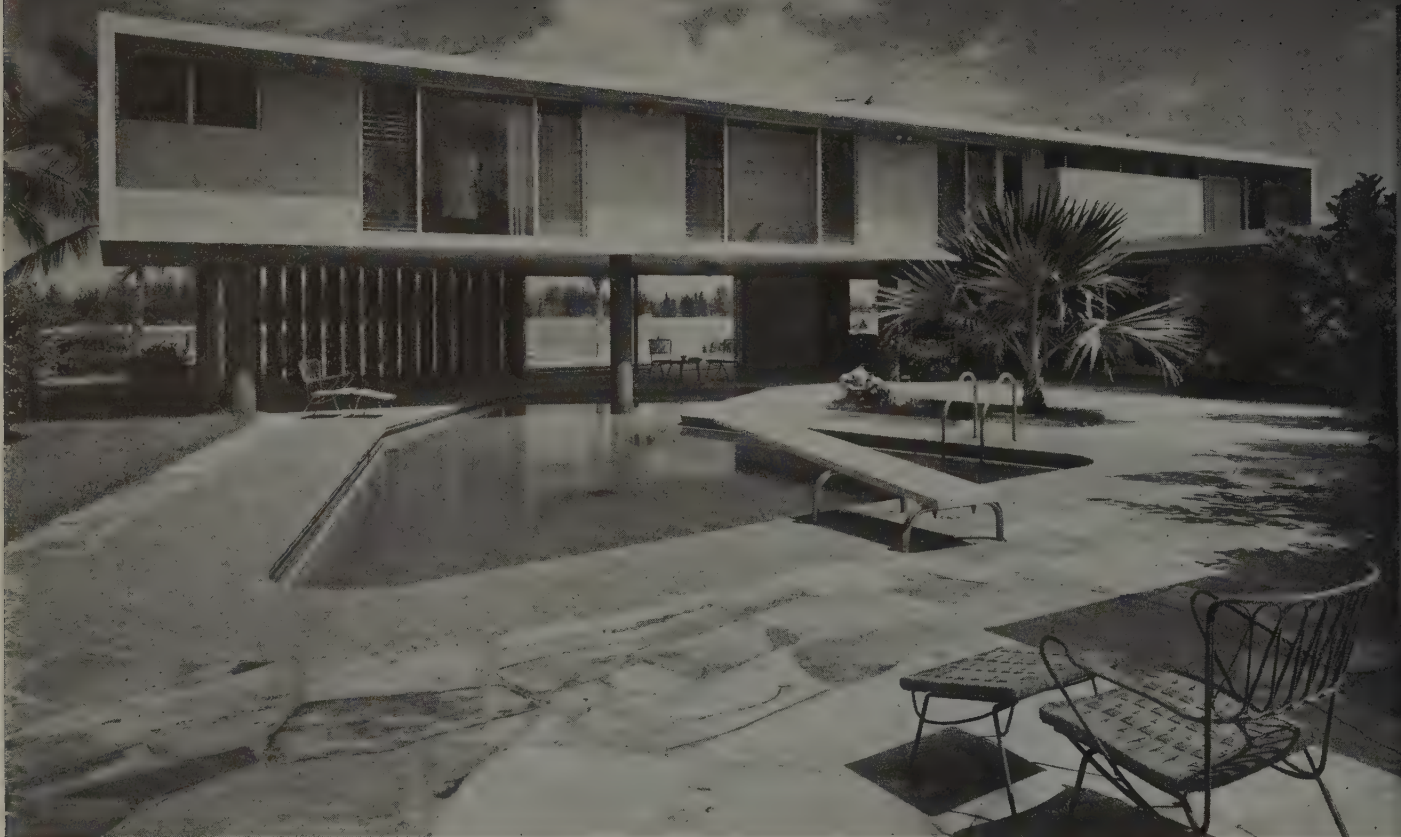


The Ingler house, completed in 1952, was designed by Philip Hiss Associates



Deep overhangs are concealed behind peripheral screening



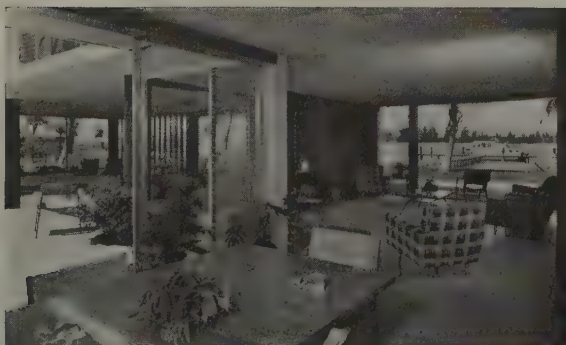


Photos: (top & opp. p.) Lionel Freedman; (below) Steinmetz

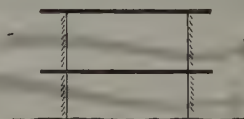
In 1950, Hiss designed and built this stilt house for himself and his family

How to keep cool

Stilt houses give you a shaded



Living area in Hiss house is shaded, screened breezeway underneath stilt structure. Many interiors in Lido Shores development, including those in the Hiss and umbrella houses, were designed by Phil Hall.



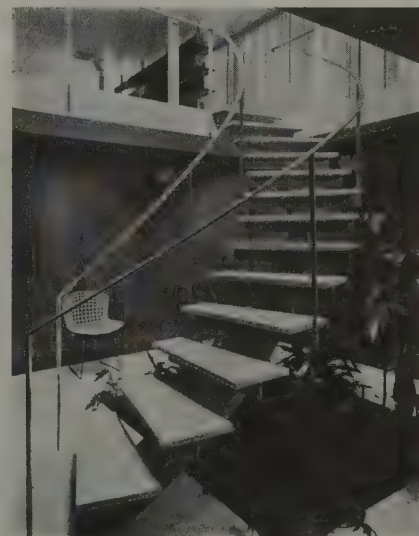
Stilt houses are an old trick in native, tropical architecture. They give you two things worth getting: one, a shady place underneath; two, more of the breeze than you can catch close to the ground. They also give you a better view.

Hiss experimented with stilts on two occasions: in 1950, when he designed his own, and happily flamboyant, house (shown above); and last year, when he designed his beautiful new studio (opposite). In the first house, the upper-floor bedrooms get complete cross-ventilation, as does the lower-level living area (see diagram). In the studio, Hiss experimented with air conditioning, sprayed the curtains with aluminum to reflect heat.

In 1953, Hiss built his stilt studio. It is the first fully air-conditioned house at Lido Shores. Says Hiss: "Air conditioning is expensive—though when I consider the damage to furniture, draperies, books, clothes, etc. due to salt air and moisture, I wonder how expensive it really is." Anyway, in this studio he decided to try and find out.



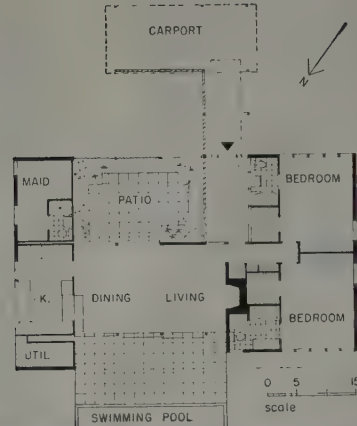
terrace below



Living room in Hiss studio is air conditioned, sealed by fixed glass. Handsome stair (above) leads up to living area.



Severs house was designed in 1952 by Philip Hiss Associates. Its breezeway-living room plus screened patio (left) add up to 850 sq. ft. of living space.



Photos: Lionel Freedman

How to keep cool

All-around screening solves many problems



Post, beam and plank structure produces two wide-open walls on long sides of living room. Planks span 8' between beams.

The totally screened room is a dramatic solution for hot-weather houses. Unlike the screened porch, this new room has screen ceilings as well as screen walls. Moreover, it is the very heart of the house, not a lean-to afterthought.

At Lido Shores, total screening is a favorite device: it keeps out bugs, lets in breeze and rains to water the plants (which give shadows). It also reduces sky glare—especially when made of the new, colored glass fibers.

These last two houses, both by Hiss, complete our story of Lido Shores.

Each one has an 850-sq. ft. living area—most of it totally screened, part of it a relatively conventional living room. But so completely have these two areas been merged that there is no longer a dividing line at all. Result: a new, vastly enlarged living space for a hot climate—the kind of space, in fact, that Philip Hiss saw in the South Seas and adapted with imagination to the American scene.

Screened patio (opposite) is part of Choate house designed by Hiss in 1953

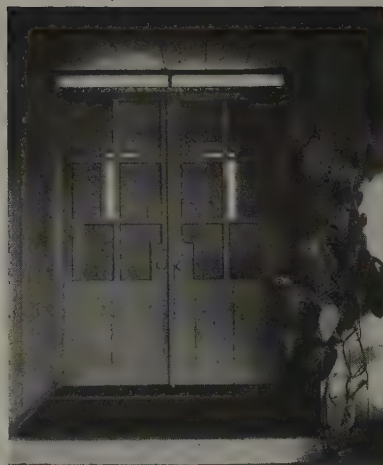


The street side of this house

is just a privacy screen and a windbreak . . .

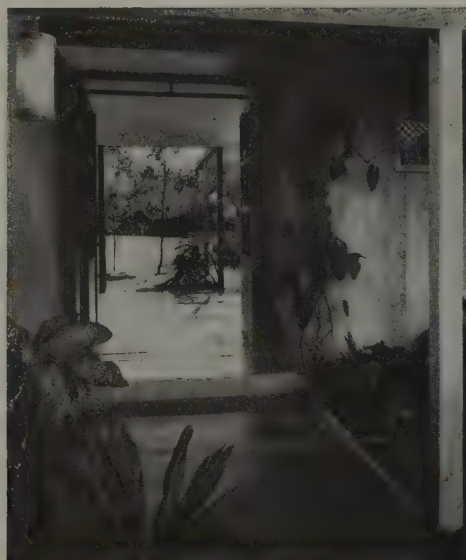


Photos: R. Wenkam



walk through the front door . . .

LOCATION: Honolulu
 PHILIP CLARK FISK, architect
 E. K. SUSUKI, contractor
 WILBUR CHOY, landscaping
 BETH GREGORY, Ansteth Associates, decorator



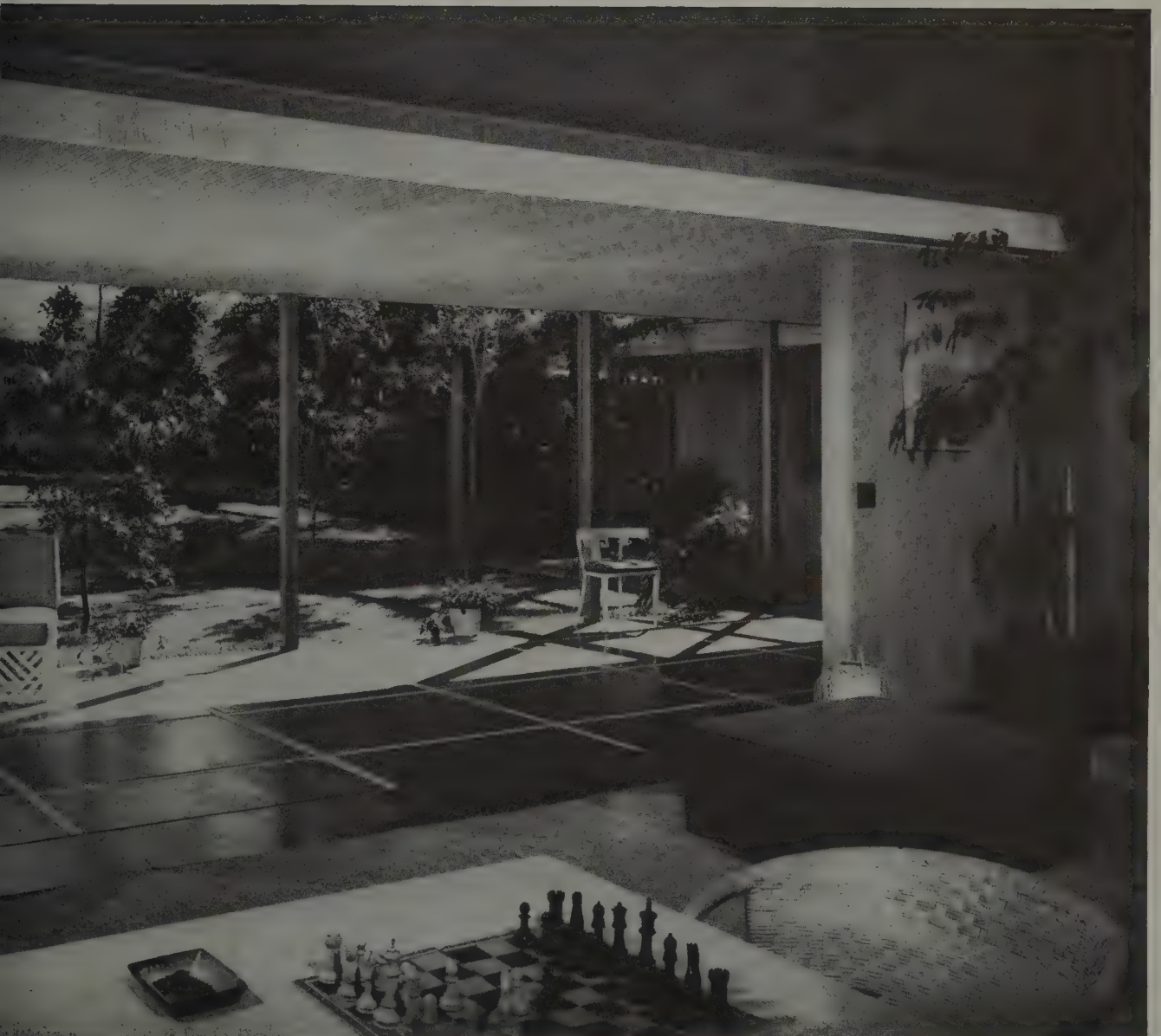
How to keep cool (without blowing away)

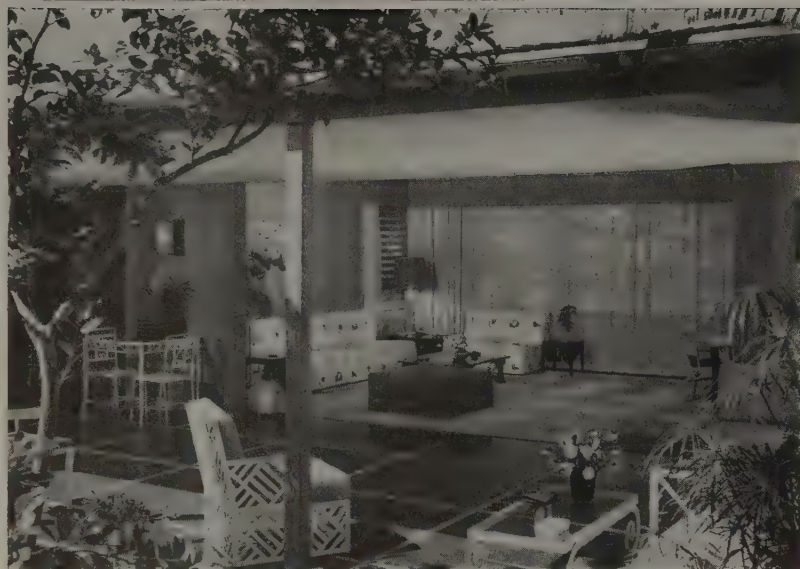
In most places that have warm summers, the easiest way to live with the heat is to live in the breeze, i.e., in a wide-open breezeway type of house. But there are plenty of exposed locations where summer breeze is so strong and so constant it can get on your nerves: papers fly around, dust or sand gets in your eyes, children catch cold easily. You want to live outdoors, but it becomes more of a problem than a pleasure.

One good solution is illustrated by this house in Hawaii (where insistent trade winds have blown papers off so many desks that all the new office buildings are being air conditioned). To stay cool and unruffled without sealing the house around a 3-ton unit, Architect Fisk made the whole windward (northeast) side a solid windbreak, punched with small inlets louvered for breeze control (photo above, left). For maximum indoor-outdoor living, he opened rooms wide to leeward, where terraces and gardens are sheltered by the shape of the house itself. Since this particular site has moderate year-round temperatures, no insects, Fisk completely omitted glass and screening between interior and exterior living areas (see photo, right). Result: you literally walk through the front door into the back yard!

Few houses dramatize so clearly the simple hot-weather truth that outdoors in the shade is the place to live almost all the time. Here the porch is the house and the house is the porch (except for the areas walled off for sleeping and cooking and a small space enclosed for cold and rainy evenings). Consequently every luxury of the conventional indoors has been built into the outdoors.

and you're **still outdoors in the formal living room**





Panorama of the living rooms with no walls to the lee. Front door (center) can be opened without loss of privacy from the street.

Behind the wide overhangs the furniture and carpeting is just as formal as in any conventional house.

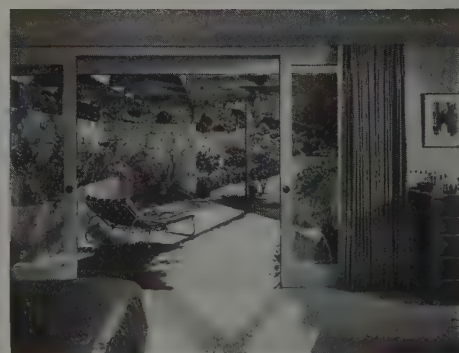
Nearly half the house is left outdoors



Only the bedrooms, kitchen and a tiny library (photo below) are indoors



For cold evenings there is a library only one-fifth as big as the space for outdoor living, with a fireplace.



Even the master bedroom is outdoors unless the sliding glass doors and draperies are closed for privacy.



LOCATION, Wellfleet, Mass.

OLAV HAMMARSTROM, architect

MARIANNE STRENGELL, textiles

STEVE S. DANIELS, general contractor

Photos: Ben Schnall

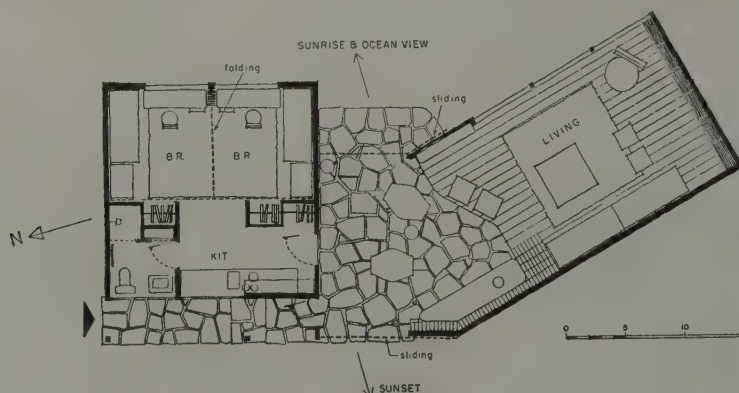


Open, but with shelter too,

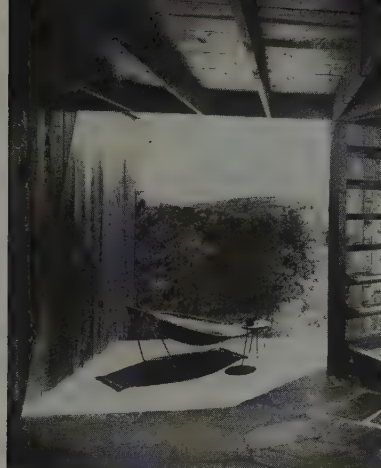
A new approach has brought a lot of vitality back to two old American clichés in this little summer house. Architect Olav Hammarstrom and his wife, Marianne Strengell, the famed textile designer, have built a real Cape Cod cottage, with a real breezeway, one even the Pilgrims would have appreciated in those hot, 17th-century summers.

It is an outdoor house but with intelligent reservations, sited halfway between a group of salt-water ponds and the ocean beach—protected from sandblasting sea storms but with an ocean view between dunes. It is built for the long season, actually, to be comfortable in a wide range of weather. At one end is a sort of inner keep: bedrooms, kitchen and bathroom, small-windowed, well-insulated, comfortable in bad weather or balmy, introverted for privacy. At the other end is an extroverted living shed, 360 sq. ft. of semiporch perched up on legs, wide open to the view, making no attempt to argue with the weather, entirely relaxed. Linking the two extremes is the breezeway, which can assume either character. Sliding doors can open it entirely, funneling the prevailing wind through, or can close it tight as Cotton Mather's smile. Its flagstone floor is a hearth as well for a big, hooded fireplace.

Notable is the cottage's intimacy with the lean landscape of the Cape. Not a tree was cut, hardly a branch; the ground cover of cranberries, huckleberries and blueberries was left untouched except where the flagstones were laid. The house itself is detailed as unpretentiously, clearly and strongly as the pines around it, but the vivid shaggy rugs and fabrics by Marianne Strengell overlay the spare structure and give it an amusingly luxurious air. Mrs. Hammarstrom had fun; one rug is designed to wear sand off bare feet. Total cost of house: \$7,500.



EAST



Open east to long view, breezeway overlooking sea of pines can be closed by sliding large wood panels on double tracks.

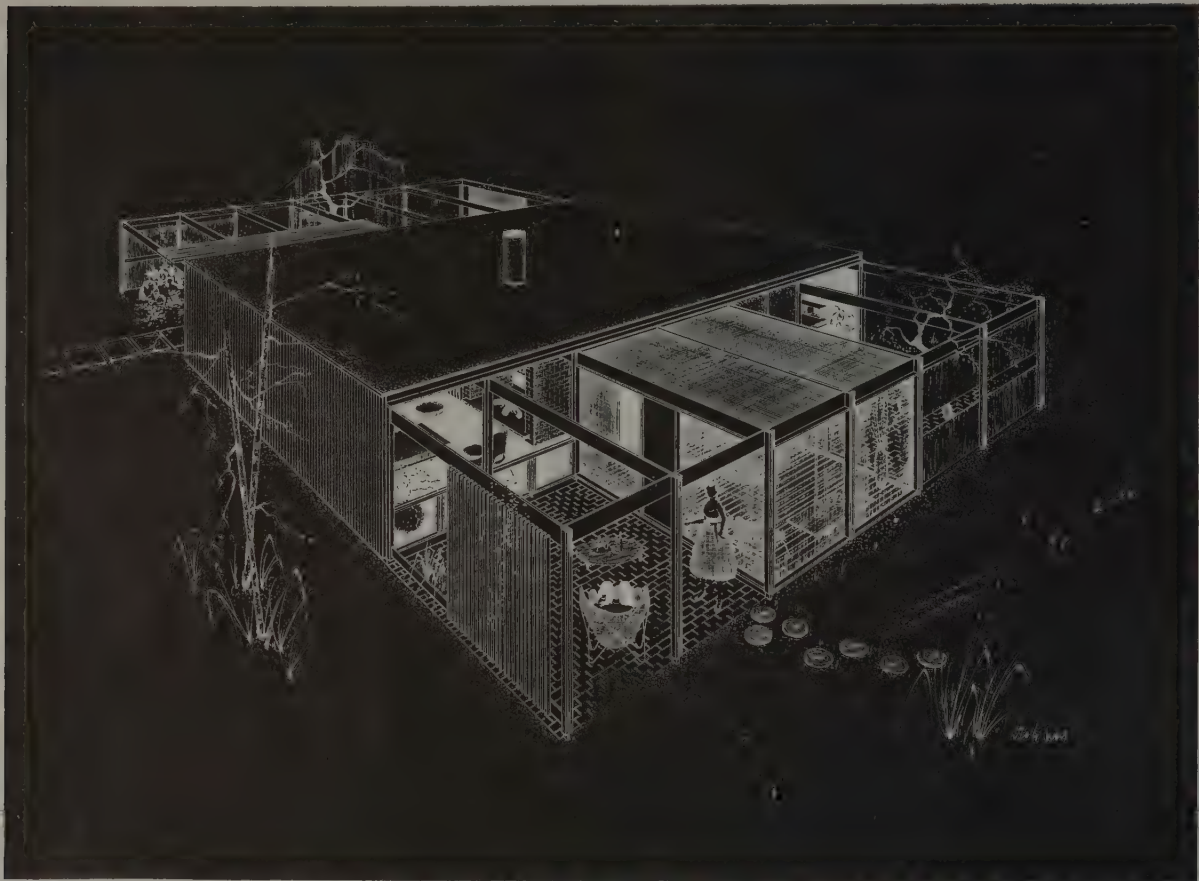
Closed south against hot midday sun, house retains cross-ventilation through louvers set in floor to pull air up from underneath. Throw-rug can shut this "window" in the floor.



SOUTH

this house recognizes that even summer has sieges of storm





Aerial perspective drawing shows living terrace outside living room proper, screened dining porch outside dining room proper, protected sleeping area beyond. Slat fences insure privacy.

How to keep cool

This breezeway house has six outdoor rooms

For a New Jersey beach community, Designer Leo Wou has produced a house that solves, simply and effectively, three common vacation house problems: first, how to get privacy on a small resort lot (answer: fence in your house); second, how to keep the house cool in the summer (answer: make it one room thick, use open slats for your fences); and, third, how to live outdoors in comfort (answer: construct screened and sheltered outdoor rooms). The result is the handsome little speculative house on these two pages.

Jean Lam



Entrance side has slat fence that shields outdoor playroom (left), small garden (at right)

LOCATION: Surf City, N. J.

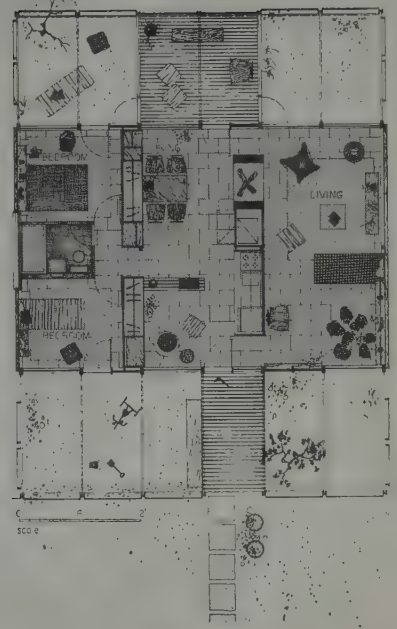
LEO S. WOU, designer

WILLIAM THOMAS, general contractor



Kitchen and dining area form single room that extends through entire house, thus permits through ventilation. Living room (below) is similarly exposed on both ends, has small terraces beyond glass walls. Construction is handsomely detailed post-and-beam frame, with double posts used throughout.

Plan is compact for 50' x 80' sea-side lots. Enclosed living area measures 24' deep x 36' long; shielded terraces along two sides of house measure 12' x 36' each. The house sells for \$14,500, including lot.

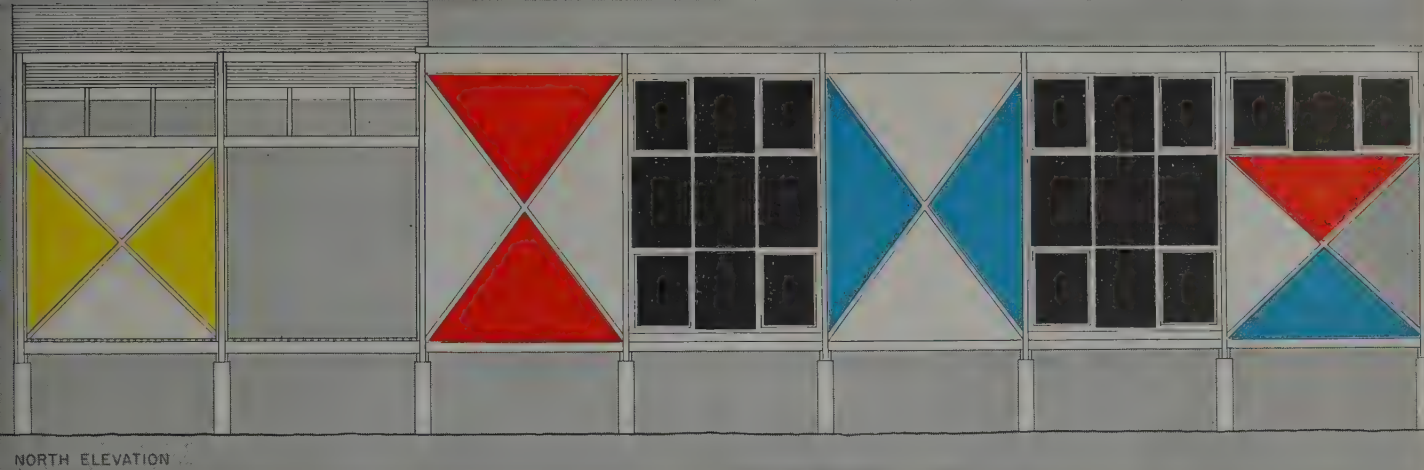




Photos: Ben Schnall

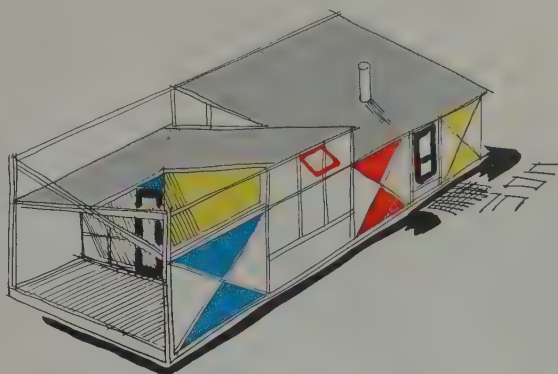
How to have fun

Pennants, bow ties,

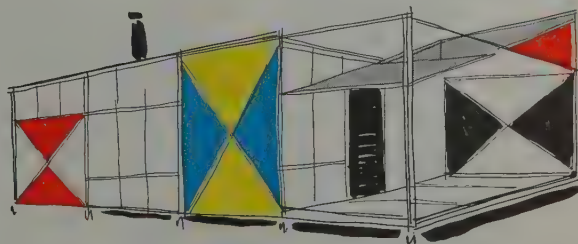
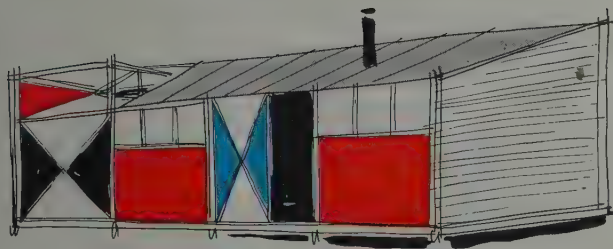


The Wilkinson cottage is a 56'-long string of brightly colored pen-
nants. It consists of seven bays, each about 8' wide, each formed
by "bow-tie truss" frames spanning 22'-6" in the short direction
(see sketches below). Bays are filled with glass (black) or with a
fiber panel crisscrossed by 1" x 4" bracing boards. Resulting
triangles are painted in vivid colors. Last two bays at left are
open, form a partly covered porch at living-room end.

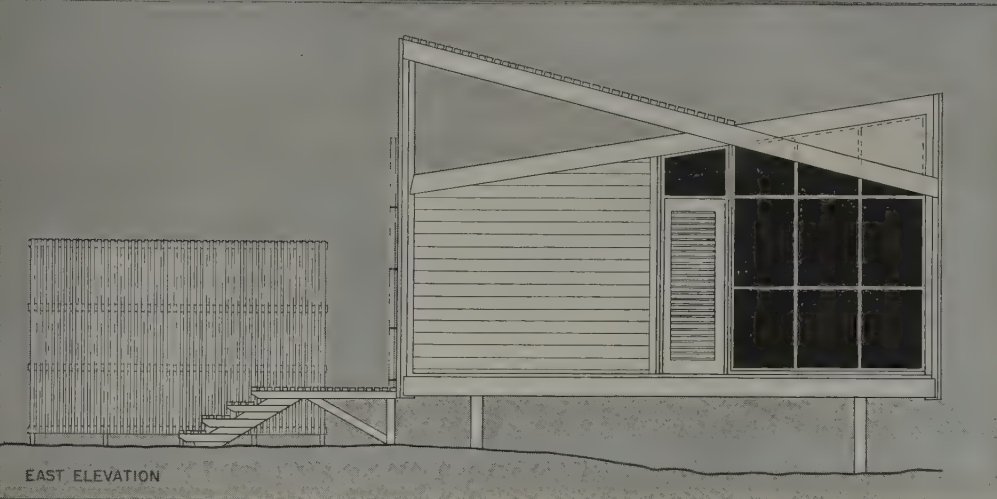
LOCATION: Wellfleet, Mass.
SERGE CHERMAYEFF, architect and painter



Architect-painter Chermayeff's own studio (shown in these
sketches) was first of several similar vacation houses built by
him on Cape Cod, Mass. The color principle is the same
in each case: rather than attempt the impossible—i.e., to
blend with nature's greens and browns—Chermayeff decided
upon the happy color scheme of bright blues, yellows and
reds in vivid contrast to the surrounding landscape. Result:
never a dead-looking surface. Chermayeff's cottages look like
lively clusters of parasols, sails and flags—entirely fitting in
a seaside vacation setting.



and a keg of nails



End elevation of Wilkinson cottage shows simple framing pattern: 2" x 10"s crossed in bow-tie fashion, supported on 2" x 8"s (see diagram opp.). The 2" x 8" posts frame into double 2" x 10" floor beams cantilevered out from 6"-diameter concrete piles. Both floor and roof decks are 2" x 6" planks. Roof is insulated, finished with sheet aluminum. Roof pitch is about 2-in-12 in one direction, 3-in-12 in the other—steep enough to take this sheet finish. Chermayeff's earlier cottages have symmetrical bow ties, but plan requirements in this case suggested an asymmetrical solution.

No houses could look less like the traditional Cape Cod salt box—yet Chermayeff feels that these little cottages have much in common with that unpretentious product of Massachusetts. Like the salt box, Chermayeff's cottages are braced into the wind, the way a ship's carpenter might brace them; like the salt box, they are built of simple, thoroughly familiar materials: stock framing lumber, stock siding, stock fiberboards, stock windows, all put together with nails and bolts, and without preciousness. And like the salt box, his houses are no "rambling ranchers"—they are geometric, composed on a rectangular grid, and painted to contrast with nature, not to imitate it.

But that is where all similarity ends: for Chermayeff has used his lumber and his sheet materials in thoroughly unconventional ways—the ways of a modern painter (which he is also) as well as those of a modern architect. The resulting patterns, brightly colored, could hardly be more festive; neither could the mood be more holidaylike. And the end product of this imaginative play with paint, lumber and nails is about as neat and natural an "integration of the arts" as any critic might ask today.

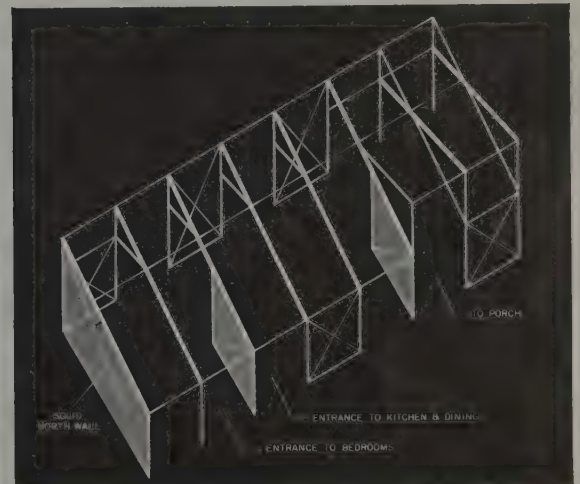
Stock materials,





Sigerson cottage in Wellfleet was Chermayeff's second experiment in bow-tie houses

braced into the wind

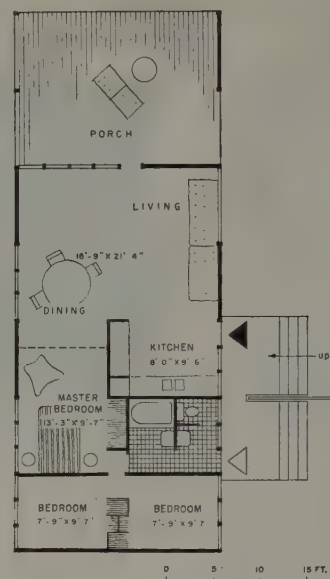


Framing diagram of Wilkinson cottage shows bracing system, use of wall panels to stiffen structure in both directions.

Porch at living-room end of Wilkinson cottage is shaded by latticework and wall panels. Chermayeff has tried to do without screening so as not to deaden views, believes that insecticide sprays are just as effective anyway.



Wilkinson living room showing pattern of ceiling struts (plan is at right)



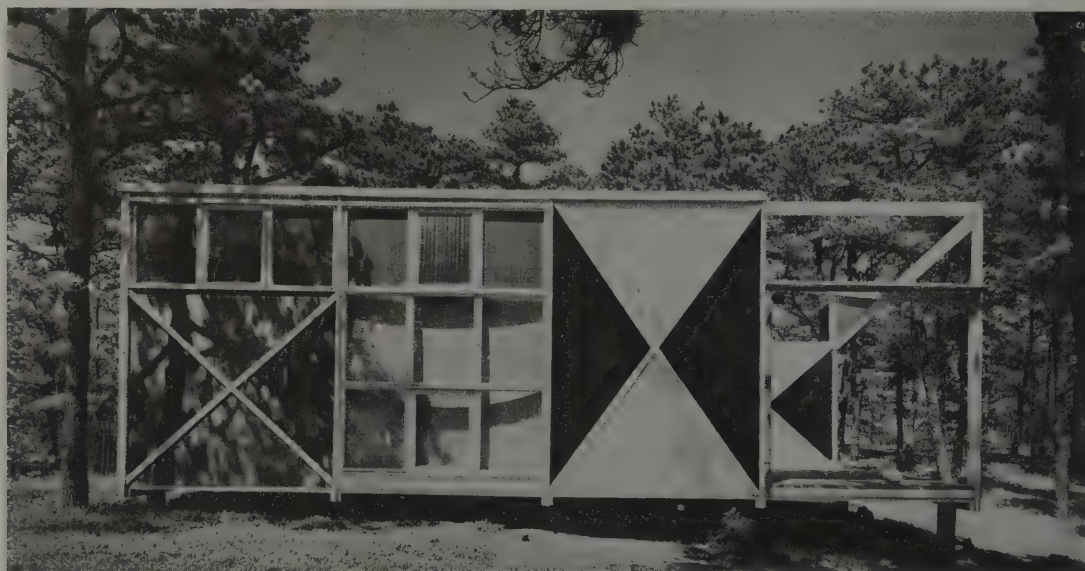
Open interiors—broken-up facades

The bow-tie framing system as used by Chermayeff in conjunction with a cantilevered plank-and-beam floor gives him an unobstructed interior and the chance to have glass walls in multiple widths of 8'. Further, it gives him an attractive (and structurally sound) ceiling pattern handsome enough to be left exposed.

In contrast to these open, spacious and flexible interiors are his exterior walls: their facades are deliberately "fragmented," broken up into small areas of different color, shape and texture. Chermayeff's reason was a basic principle of camouflage: for to leave the landscape reasonably undisturbed it was necessary for him to break up his facades (some of which are 56' long) and to make them look like a collection of small-scale objects—in this case, as we have seen, objects resembling pennants and parasols, objects that you would expect to find in a vacation landscape.

The camouflage works perfectly; for though the pennants are bright in color, they never seem to add up to a big hunk of man-made stuff—10,000 cu. ft. of man-made bulk, plonked down rudely among the trees. In a curious way, these sophisticated and colorful abstractions show more respect for nature than many a "woody" cottage.

Chermayeff studio (below), built 18 months ago, was the prototype for three other, similar structures that have gone up since. Colors are red, black, white, blue and yellow. Opposite: entrance side and porch of Wilkinson cottage.





Segregation decisions jolt public and private housing

Dixie move to kill public housing rather than integrate it is smothered in the Senate but more court suits by NAACP seek positive ban on racial segregation

IN THIS MONTH'S NEWS

(see pp. 35 through 45)

Senate botches the housing bill so only a miracle in conference could save Eisenhower's program

HHFA revives the dormant FHA scandals by listing 200 builders who mortgaged out on 608s

Michigan builder wins a key court decision forbidding AFL pickets from trying to force a union shop

Will the nothing-down boom lead to serious overbuilding? A lot of lenders fear it will

Rival National and US Savings & Loan Leagues edge a little closer toward a merger

In the postwar years, racial segregation has been a smoldering but often half-buried problem of housing. Last month, it flared into a front-page issue—an issue that could become an overriding problem for both public and private housing.

The US Supreme Court set up the framework for repercussions that followed fast. First, the court decided unanimously that school segregation is unconstitutional because—in Chief Justice Warren's words—"separate educational facilities are inherently unequal." Seven days later, the court refused without comment to hear an appeal from the California Supreme Court which had ruled unconstitutional the San Francisco Housing Authority's policy of segregating races in public housing projects according to existing neighborhood racial patterns.

Because it came on the heels of the school ruling, the high court's refusal to consider the California case was widely regarded as tantamount to a decision that public housing, henceforth, must draw no color lines. Actually, it meant no such thing, legally.* The two decisions, however, did hint clearly that the Supreme Court would bar segregation in public housing if and when it actually rules on the issue.

Alarm in Dixie. The first result of the court's San Francisco decision was to drop a bombshell on efforts in the Senate to restore public housing to the 1954 housing bill. Sen. Burnet R. Maybank (D, S.C.), senior Democrat on the Senate banking committee and long a powerful advocate of public housing, announced: "I regret that the Supreme Court decision makes it impossible for me, believing in local government, to support any public housing. I, therefore, oppose any public housing program."

For a time, it looked as though enough southern senators might side with Maybank to doom public housing to a quick burial (the House had already voted to end it after the 35,000 units in PHA's pipe line are built). Without the traditional support of Southern legislators (who may see in public housing a

chance to provide more housing for Negroes and clean up nauseous slums without expanding the area of colored occupancy), there did not seem to be enough votes in the Senate to revive the program.

Then Republican strategists had some second thoughts. If public housing was knocked out of the housing bill, voters would probably blame the party in power regardless of who was responsible. With fall elections so crucial to the GOP, and with the outcome perhaps dependent on the Negro vote in many states, would killing public housing help sweep Republicans out of control of Congress next year?

Top GOP strategists, events indicated, decided to make support of President Eisenhower's request for 35,000 units a year for four years a party "must." Better to accept public housing, the argument went, than to take chances with the election.

Deal in the Senate. The result was what the pro-public housing *Washington Post* called a "happy housing deal." The Republicans agreed not to force a roll-call vote on Sen. Maybank's amendment on the floor to kill public housing. It was defeated by a chorus of "noes." This, as the *Post* also noted, "enabled Southern senators to let off a little steam without splitting their ranks in an embarrassing fashion on the eve of the midterm campaigns." In return, the Democrats let the President's four-year plan for 140,000 public housing units go through intact. The vote was 66-16, with even such antipublic housers as Sens. Dirksen (R, Ill.) and Bricker (R, Ohio) voting for public housing.

Public housing was not yet sure of inclusion in the housing bill. As the measure went to conference (see p. 35), antipublic housing Congressmen were attempting to bind House conferees to insist on no public housing. At midmonth, a deadlock between House and Senate looked likely. The outcome was uncertain.

Compliance in San Francisco. The San Francisco case which stirred up all the fuss

* Said Justice Felix Frankfurter in a 1950 case (*Maryland vs. Baltimore Radio Show*): "... Inasmuch, therefore, as all that a denial of a petition for a writ of certiorari means is that fewer than four members of the court thought it should be granted, this court has rigorously insisted that such a denial carries with it no implication whatever regarding the court's views on the merits of a case which it has declined to review. The court has said this again and again; again and again the admonition has to be repeated." Commented Attorney Charles Abrams of New York (in a talk to the National Housing Conference last month): "A reading of the San Francisco case ... will show that the case did not involve solely a constitutional issue but embraced a number of other issues, some of them procedural, such as the right to mandamus and other technical questions. Anyone familiar with the court's practices knows that the court is not prone to accept for review state court decisions which involve other than pure constitutional issues."

involved three Negroes who were refused admission to the new North Beach public housing project which lies in the city's Italian district. This was in line with the San Francisco Housing Authority's policy since 1942 of preserving as much as possible "the same racial composition which exists in a neighborhood where a project is located." In San Francisco, ethnic neighborhoods had been familiar since gold-rush days. Another new project, Ping Yen, was plunked in the heart of Chinatown—and reserved for Orientals. In the North Beach case, the California Supreme Court held the policy violated the 14th amendment by denying the three Negroes equal protection of the law.

Beneath the litigation—and a factor in southern fears about integrated public housing—was the belief that unsegregated public housing in many cities would quickly become all-Negro public housing. Two years ago, the San Francisco Housing Authority pointed out.

► Whites, comprising 90.7% of the city's population, occupied 60% of its 13,263 public housing units.

► Negroes, comprising 5.7% of the population, occupied 37% of the units (4,859).

► Other races, representing 3% of the populace, occupied 3% of the units (434).

Said one official at that time: "Frankly, the whites move out about as fast as the Negroes move in. Abolish the pattern, and within two years virtually all public housing would be Negro-occupied. Public housing would thus become housing for one race, and I do not believe it could be justified as a public expenditure."

After the Supreme Court acted, the Housing Authority swallowed its views, promised 100% compliance. Executive Director John W. Beard said the first step would be to reprocess a backlog of 1,500 applications to see who was still eligible for admission on the basis of income. Of the applications, 1,200 were from Negroes and 100 from Chinese.

Anger in HHFA. Privately, some HHFAides were furious at San Francisco for fighting the case all the way to the US Supreme Court, where the decision had national impact. They argued that it would have been years more before a case from a Southern state would have reached the high tribunal—and that meanwhile a lot more public housing could have been built with less controversy.

In the South, however, the National Association for the Advancement of Colored People was losing no time trying to break down segregation barriers for once and for all via the courts. Three days after the Supreme Court's school decision, 18 Negroes asked a Savannah federal court to enjoin the Public Housing Administration and the Housing Authority of Savannah against denying them admission to Fred Wessels Homes, a new apartment project. They also asked \$90,000 damages. In Birmingham, Ala. a group of Negroes sought a similar injunction against segregation.

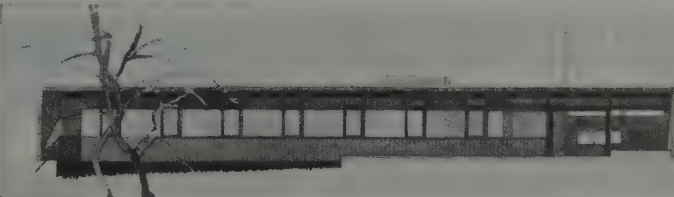
Repercussions for FHA? Though the segregation battle over public housing drew the headlines, advocates of integration were also

putting pressure on governmental policy and private selling practices in the general housing market. For the long run, these moves held much more significance. Important strides had already been made. Zoning on a racial basis was held unconstitutional in 1917. Covenants barring sales and occupancy on the basis of race had been declared unenforceable. Since 1950, FHA had refused to insure loans in areas where racial covenants existed. It had removed all references to race from its underwriting manual. It had announced that in selling foreclosed property, it would draw no racial distinctions. Thus, only the common consent of neighbors, which could be broken at will, remained last month as a means to maintain racial homogeneity in neighborhoods.

The next step, already being litigated in Sacramento, Calif. (H&H, June '54, News), was to obtain injunctions against discriminatory selling in subdivisions financed with FHA or VA loans—or to attempt to amend FHA and VA legislation to prevent builders from refusing to sell to otherwise eligible persons because of race. If this issue comes to a head and is not defeated (and any defeat seems likely to be temporary), the result would be either: 1) FHA would be killed off, or 2) it would become a positive force in racial integration.

The pressure on the private housing market arises from two sources. One is the real demand for more space for the Negro population, which is growing both in numbers and buying power. The other: an ideological demand for equality and freedom of choice.

Whatever the final outcome, the transition time promises to be one of tension. The best hope for reducing the strains: a big increase in good housing, both new and old, available to Negroes. Although, as New York Attorney Charles Abrams recently noted, "in most large cities the slum and the minority problem are one," the Negro housing problem is by no means exclusively a slum or even a low-income housing problem. In most cities, there are sizable numbers of Negroes who can afford upper-bracket homes.



Danish architect designs 'Canadian House of Tomorrow'

In a contest for a "Canadian House of Tomorrow" suitable for a family of five, Architect Knud Peter Harboe of Charlottenlund, Denmark (who had never been to Canada) took first prize of \$5,000 with this long, low dwelling. The judges said it had "an essential simplicity, a coherent form, impeccable taste, an ordered, intimate, calm, even austere, interpretation of family life. . . ." There is a spacious living room, carport and high fence for privacy. The contest was promoted by Calvert Distillers, Ltd.

Levitt cuts price of \$9,500 model \$510 to spur sales

Builder William J. Levitt, working away at a 16,000-home project in Bucks County, Pa. (more than half the houses are finished and occupied), announced suddenly that he would cut the price of his most popular model, the two-bedroom "Rancher," by \$510. The new price is \$8,990 and the new down payment is \$450 (instead of \$1,110) and the carrying charges are \$57 a month instead of \$59.

One reason: "Business recently hasn't been so good"—not only his own, not just the building industry, but the whole US economy. Said Levitt: "Lower down payments mean that more people will be able to buy houses. That, in turn, means increased volume for all builders. This country has shown over and over again that high volume results in lower prices and we in our own way are trying to demonstrate that lower prices can result in higher volume. . . . This kind of action will stop recession or worse."

Levitt called the reductions in line with the intent of the new housing bill to provide lower down payments and said he hopes other builders will follow his lead.

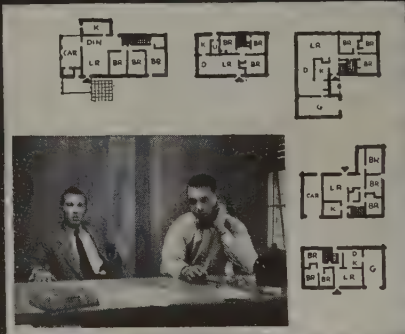
In a few scattered spots elsewhere, the first signs of a tightening sales market were appearing last month. Reported the *Milwaukee Journal*: "The new home market is tightening for builders here. . . . Prospective buyers have become more selective. This has forced a stronger selling approach upon the builders." Said a San Francisco banker: "Sales are good if you're giving the house away, but when it requires equity, you require salesmanship." Said a Houston mortgage man: "Sales are good, but I expect to see keen competition among builders by late summer because we now have the largest backlog of new houses under way since 1950."

Anticipating harder selling ahead, NAHB directors last month voted to appropriate \$30,000 to finance a major program of sales training and sales aids for NAHB members. One aim: to help homebuilding reach its new goal of 2 million units a year.

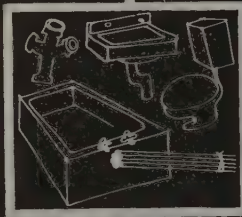
and sponsored by the school of architecture at McGill University. More than 650 designs were submitted. Judges: Eric Arthur, professor of architecture at the University of Toronto; Humphrey Carver, research chairman of Canada's Central Mortgage & Housing Corp.; Gio Ponti of Milan, editor of "Domus." The judges had to admit that "no house among those submitted could be said to be the "Canadian House of Tomorrow" but added that "many contain ideas that can be exceedingly influential."



1. Developed land package



2. Design package



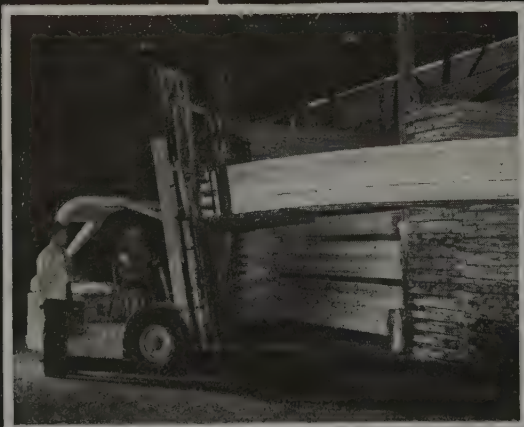
3. Heating and plumbing packages



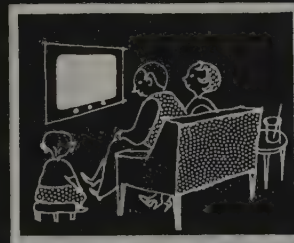
4. Panel package



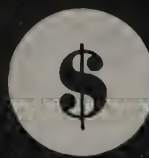
LUMBER DEALER



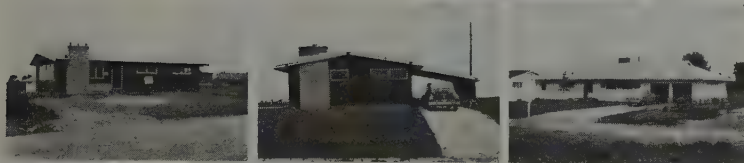
5. Mechanized materials handling



6. Merchandising package



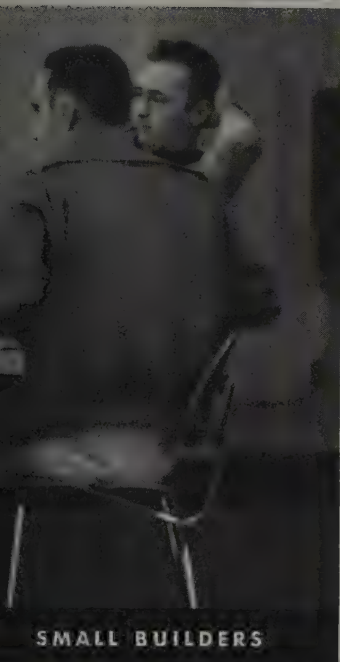
7. Financing



The houses they build



The squeeze is on the small builder. His future depends in large part on what the lumber dealer can do to help him. Because these two long-time partners are not fully coordinated, neither now occupies so important a position in the industry as before the war. But don't count the small builder out: lumber dealers are tackling the problem of cutting his costs from many different angles. Here is the first of a series of HOUSE & HOME reports on what lumber dealers are doing to keep their small builder customers in business.



❖

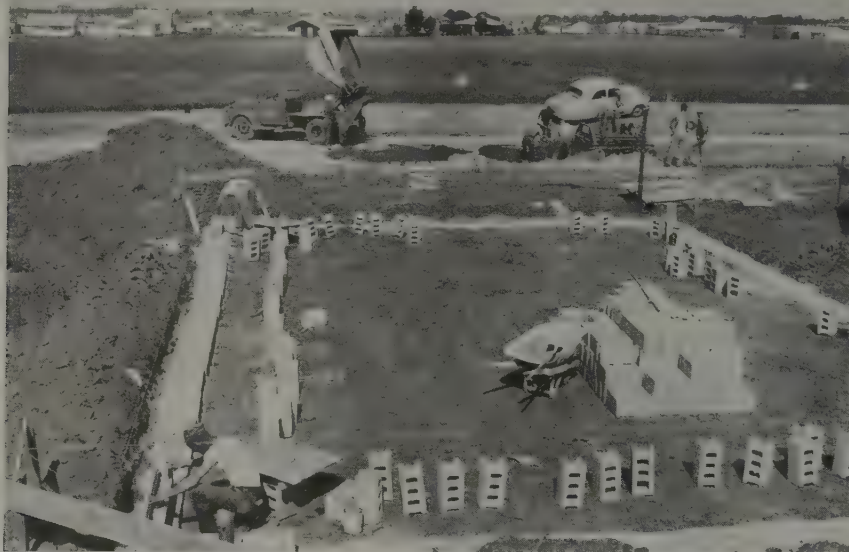
Lumber dealer coordinates products and services

to cut small builder's costs

"For years you have been able to walk into an auto or appliance dealer's store and get the price on a car, a stove or a washer. But you still can't get the price on a house from a lumber dealer. He just wouldn't or couldn't package all his components to quote a price. Now we have packaged the deal in housing. And more and more lumber dealers are doing the same. Our skill is putting more and more things together in the house package to lower small builder's costs." So says Lumber Dealer Clarence A. Thompson, Champaign, Ill.

Modest but merchandising-minded Thompson who operates four successful yards in central Illinois and chairs the Lumber Dealers Research Council does 70% of his business with the 5-to-25-houses-a-year builder. He has outlined a seven-point program to package everything including the kitchen sink for his builder customers (see opp.), starts the building operation off on an assembly-line basis in his own fully mechanized yard.

* When Thompson (behind desk) talks of the small builder he means the builder of from 5 to 25 houses a year. Actually, a builder of 5 houses is in the top 19% of builders (5 and more houses) who build 77% of all units. Latest figures by the Bureau of Labor Statistics show that only 22,430 out of 119,100 builders put up 5 or more houses a year. Only 4,220 build 25 or more but account for 54% of all housing units built. With Thompson are Quentin Snook and Arthur Bach.



First house foundation is laid in Thompson's Mayfair Addition while men pour cement for roads



Simon



Rettberg

Architects Bob Simon and Gerry Rettberg face up squarely to the fact that not everyone can afford full architectural service ("We do get to provide our plan service to people who would never have gotten professional help"). Both were with Small Homes Council where they got excellent training in small-house design and production, now serve 49 lumberyards in a 200-mi. radius besides running a sizable custom-house practice. Pitfall of the plan service, they say, is that lumberyards want to be assured of business if a job originates through them and they may not always steer clients who need full architectural service to the architects for fear of losing out on bids.

Photos (top & below): Chuck Scott



Trade Secrets house adapted to area was designed by Simon & Rettberg. House has 1,416 sq. ft. sold for \$18,500. Similar house was sold speculatively first afternoon shown. Builder: Richard Faletti.

1. Small builders need fully developed lots, so . . .

Thompson threw in with three businessmen on 106 acres (above) to install streets, utilities. (As everywhere, developed land is fast running out in Champaign.) Lots are sold in parcels or individually to builders or individual buyers. "This assures us of future business and helps the small builder who doesn't have the financial resources to develop land on a big scale—and therefore economically." Thompson also keeps an up-to-date list of available scattered lots.

2. Small builders need help in design, so . . .

Thompson worked out a program with Champaign Architects Simon & Rettberg who do preliminaries and working drawings for Thompson's builders and customers on a set fee basis related to house size. Clients never come into contact with the architects who spend all their time over the drafting table. Thompson sales personnel interview prospective owners or builders, get their sketches of new plans or revisions of previous plans, products they want used and price or costs. Sales Manager Don Miller and Bob Boyd run liaison between builders and architects, get architects to do prelims, possibly colored renderings. After revisions, architects provide working drawings, foundation plans, typical wall section, kitchen cabinet details. Total cost on a 1,200-sq. ft. house would run \$75 if architects also supplied plot plan.

For his own area Thompson thinks this plan service makes more sense than carrying a draftsman on his payroll ("he would need design direction, anyway; he might not be used to his highest degree of skill all the time").

Staunch ally of the architect, Thompson says: "We do not attempt to replace him." He has convinced several builders who had never used architects to do so now. He plans co-operative action with builders in the future on land and design, builder to take 2/3 of profits, share losses on a 50-50 basis. For his 1/3 of the profits Thompson will purchase land, get financing, exercise architectural control through his architect contacts. He has recently been working with Architects Jim Lendrum, director of the Small Homes Council, and Rudy Jones, assistant director, on a 12-lot tract.

3. All builders face high costs

on plumbing and heating, so . . .

Newest additions to Thompson's seven-point program are packaged plumbing and heating units. Thompson, who once held a prefab dealership, admits he got the idea from the prefabricators, says: "This is not another do-it-yourself gimmick. Either we do the packaging job—or Sears Roebuck or the prefabber does." General Manager Dave Squires found Thompson was creating jobs for builders and throwing a lot of business to plumbers and heating contractors free. Thompson and Squires put their heads together, decided a prefab plumbing tree and precut pipe was not a big enough package to make selling profitable for them; so they merchandise plumbing fixtures as well. Heating unit is packaged for Thompson by a Cincinnati manufacturer complete.

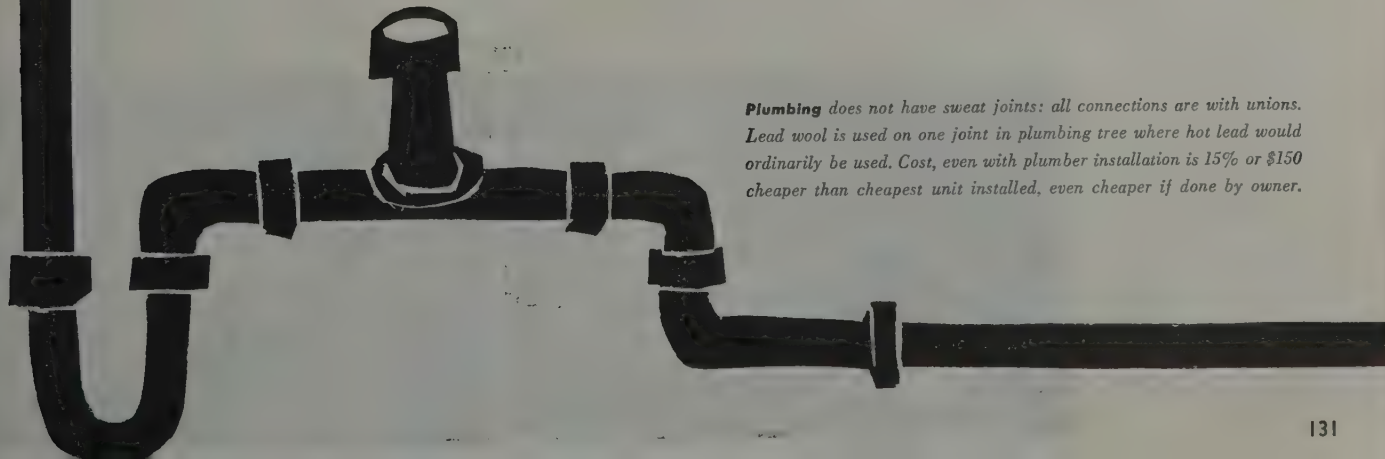
Heating is frequently installed by builders in Thompson's area, "so no trade is really cut out." Thompson can buy a heating unit for the same price as authorized dealers even though he buys it through the dealer. Reason: discounts increase with volume. The heating dealer is not hurt by the short circuit. Thompson says simply: "We sweeten the kitty for the authorized dealer who handles a larger billing than he would if we didn't merchandise the package."

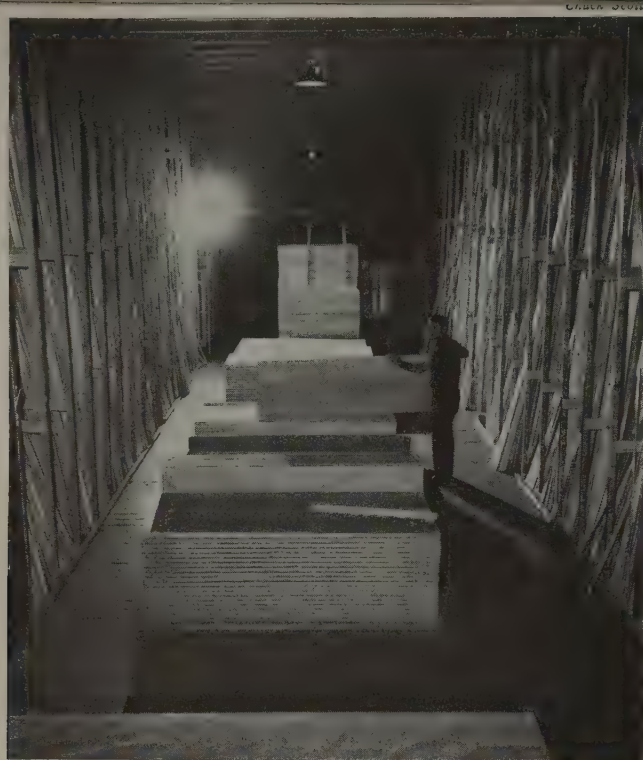
Plumbing pipe is cut by E. M. Hays Plumbing & Heating Co. (union shop). Thompson's arrangement is to have Hays make delivery and get a receipt, while he handles the merchandising and selling to owners or contractors. Installation is made either by Hays, the builder or owner, code permitting. "This arrangement helps the small builder because it substantially reduces the materials markup."



Heating units come from the manufacturer in separate packages which can be fitted on a 3' x 3' pallet. Burner unit is completely assembled, ductwork packaged and easily assembled by sheet metal screws. Even job number is stamped on packages to expedite delivery. Complete system is 25%, or \$225 cheaper than cheapest unit installed.

Plumbing does not have sweat joints: all connections are with unions. Lead wool is used on one joint in plumbing tree where hot lead would ordinarily be used. Cost, even with plumber installation is 15% or \$150 cheaper than cheapest unit installed, even cheaper if done by owner.





Minimum of 10,000 sq. ft. of floor space in Thompson's shed is reserved for millwork and manufactured products like dry wall. Part of his service is to offer a wide product range. No advocate of lumberyards doing millwork, he says: "There is a legitimate place for a good many people in the building business. Specialists are cheapest."

4. Builders must save labor in wood framing, so . . .

Part of Thompson's materials package is Lu-Re-Co (for Lumber REsearch COuncil) panels, developed by the University of Illinois Small Homes Council for the lumber dealers (see H&H, March '54). "They're just one of many ways a lumber dealer can get a job sold," says Thompson. "They are a lever to make sales to tract builders whom we've never sold before. Their keynote is flexibility.

"Whether we do the panelizing or the builder himself does the job doesn't really matter." Working with Builder Carl Swarz in Decatur, Thompson supplied only the lumber while the builder set up his own paneling assembly line. Swarz, a 20- to 30-houses-a-year builder, will be doing from 100 to 125 now. In Champaign and Urbana nearer his home office Thompson has supplied panels directly to builders. To precut and preassemble on the local level both builder and dealer should know what they are getting into, says Thompson: "There is the no-small matter of overhead."

Photos (below): courtesy Hyster Co.



Versatility of Lu-Re-Co panels was demonstrated on this panelized house with vertical redwood T&G siding. Panels were sheathed, almost completely sided in Thompson's yard; final strips of siding overlapping panels were applied on site. Method: siding was shiplapped at one end so it could be slipped into place. Builder: Ozier-Weller.

5. All builders want what they want

when they want it, so . . .

With the only lumberyard in a 100-mi. radius that is fully mechanized Thompson can get the material a builder wants "when he wants it and in the shape he wants it." Momentum of quick, efficient materials handling is carried to the builder at the end of the assembly line. Costly delays are eliminated. More mechanized than most lumberyards, Thompson's can carry a bigger ratio of office-to-yard personnel.

Flag in his mechanized fleet is an end-loader fork-lift truck. It was developed by General Manager Dave Squires and is manufactured for the industry by a Peoria, Ill. materials handling manufacturer. It answers objections to use of mechanized equipment in lumberyards because it:

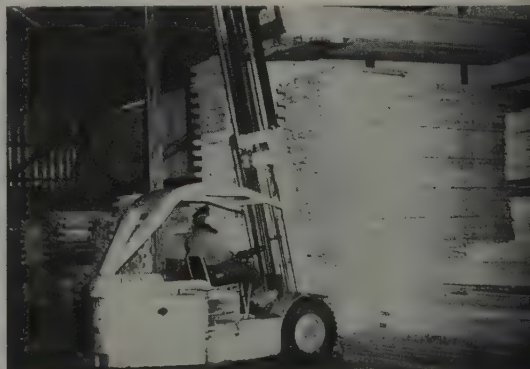
eliminates storing lumber packages parallel to aisles as must be done in standard fork-lift operations, means more storage in less space;

makes every pile available from the truck aisle;

places and removes packages from bins to trucks in less time and with less effort.

Says Thompson, "We know mechanical handling has greatly speeded our own operation. Perhaps more important, it has enabled us to give the builder far superior service than we ever could before."

Mechanization takes command: end-loader enables complete package of lumber to be removed from pile, set aboard truck for quick delivery (below). Thompson has speeded unloading of railroad cars by getting Boise-Payette Lumber Co. to ship him unit carloads. A 30,000-bd. ft. car takes two men two days to unload by hand, can be done mechanically by four men in three hours.



6. Small builders

have a merchandising problem, so . . .

Thompson creates jobs for contractors who do not build for sale by a rounded newspaper- and TV-advertising program. This program, not so incidentally, stirs the market for built-for-sale housing. Speculative builders of panelized houses can also cash in on the Lu-Re-Co merchandising program which includes use of cutaways, posters, labels, advertising mats. His aggressive merchandising program is not without problems. Two of them: difficulty in convincing some builders he is not doing the contracting because he performs so many services; convincing others he does not play favorites in getting a job built. He advertises four ways to build:

Complete house built by a local contractor.

Panelized house (Lu-Re-Co). Customer buys all exterior walls preassembled in panels, installs his own windows and doors, does all finishing.

Finish-it-yourself. Thompson supplies all material, the buyer all the labor. "This is ideal only if an owner has a lot of time and ability," says Thompson.

Shell house. All materials for the house are supplied to a local contractor who completes the exterior, leaving interior for owner-buyer. Thompson started this program during the Korean war to compete more effectively with prefabbers: "We could offer a 1,200 sq. ft. shell rather than a 900-sq. ft. house." He insists that the outside be completed "so buyers can work indoors, and the shell house won't give a neighborhood a black eye." He thinks the shell house gets more publicity than it deserves because of its novelty, but "frequently we can get a builder some work he wouldn't otherwise have." On the do-it-yourself program: "It's bound to cost the consumer more for materials because it involves so much more time, service and overhead by the dealer. We can handle the materials for a complete house with a lot less personnel. For do-it-yourself we need a raft of men to handle piecemeal purchases and shipment of materials."



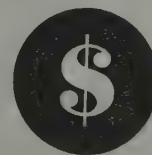
Good-looking store is as much a part of Thompson's merchandising as a TV series emphasizing down payment and monthly payments on houses. Says Thompson: "We offer a complete package and price is part of it." Store was designed anew by Architects Simon & Rettberg after a big fire.

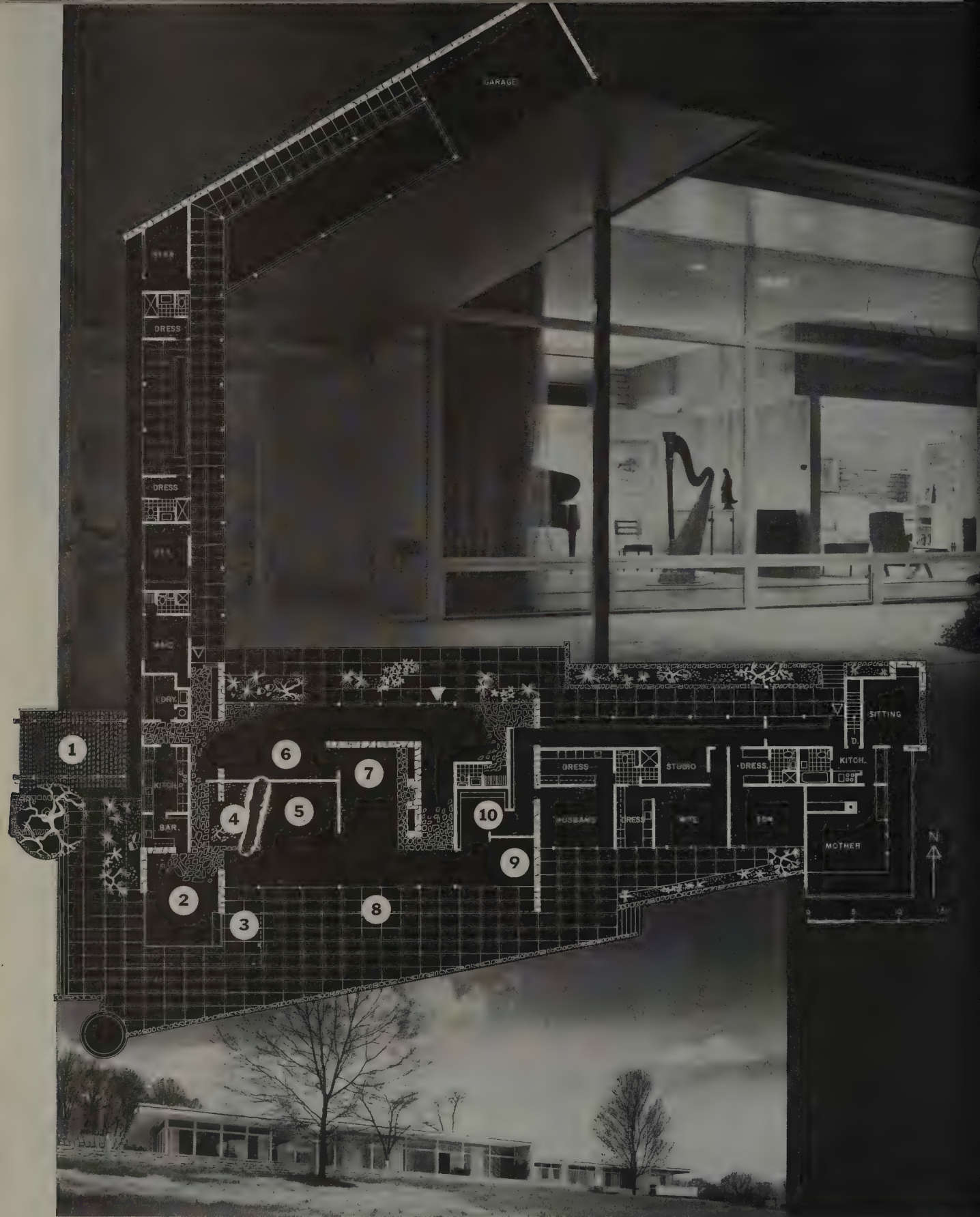
7. Small builders

have a financial problem, so . . .

Thompson arranges construction and final financing for his customers, even makes out FHA applications, takes loan applications and spends time contacting local FHA and VA offices for builders. By taking a contingent liability he can swing construction money at a local commercial bank.

"Financing," he says, "is something we don't get paid for directly since we do not try to replace the broker. But we know money is of supreme importance to our own business and the business of getting houses built, so we arrange for it." His ability to get construction money is so well-known that one young architect building his own house says: "Where do you think I went first? Not the bank. Thompson."





The living room in this house



Photos: Lionel Freedman

1. Sitting terrace
2. Dining room
3. Dining terrace
4. Indoor garden
5. Music room
6. Gallery
7. Sitting room
8. View terrace
9. Reading room
10. Library-office

In this elegant house in the Appalachians, Architect A. L. Aydelott and Associate Chia-Yi Jen have tailored one big space to fit a variety of moods and functions.

For different activities, they have cleverly subdivided the house's central living zone (above and left) into ten different spaces, each separated for a particular purpose yet merging freely with the others.

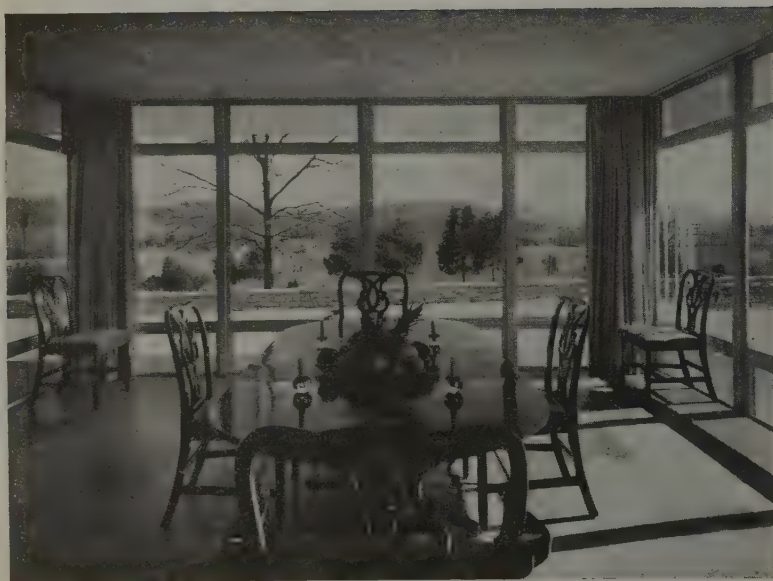
For view and privacy, they have arranged the rooms in a long, in-line plan, opening southward like the teeth of a comb toward the valley and mountains beyond. The back of the comb is an irregular line of partitions shielding rooms from the approach.

For spaciousness and through ventilation (without air conditioning), partitions are placed as baffles so that few doors are necessary; some are of low height to allow a flow of space and air across the ceiling.

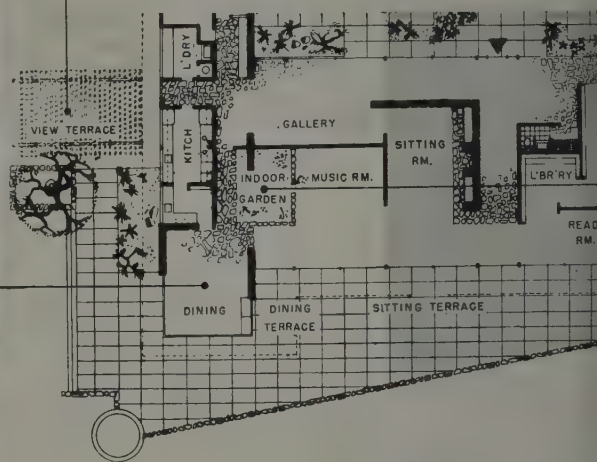
For shade and easy circulation, rooms are set behind galleries and overhanging roofs on both sides—a glassed-in version of the veranda plan traditional in the hot South.

For sheer excitement, the designers wove into their practical plan a web of visual effects that are ever changing: high ceilings and low ceilings, side lighting and top lighting, short views and long views, textures that shift from the warmth of wood and the rough security of stone to the sleek sophistication of plaster and glass.

s ten different rooms in one



Fish-bowl dining room juts out from house to give everyone seated around table a panoramic view of the mountain scenery. Window wall shows wide-span framing typical throughout house: 3" steel posts (square sections for window mullions here) supporting steel beams on which 2" x 10" joists are hung. Ceilings are acoustical plaster.



Some of these living rooms are sunny and spacious

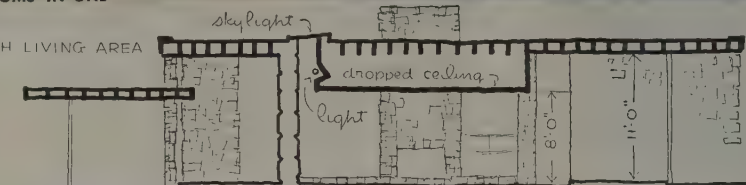


View terrace on west side of kitchen and dining room overlooks swimming pool and gardens on two sides, valley view on the other (right). Pergola roof, topped with corrugated translucent plastic, shields sitting and dining space from direct rays of sun but lets through diffuse light.

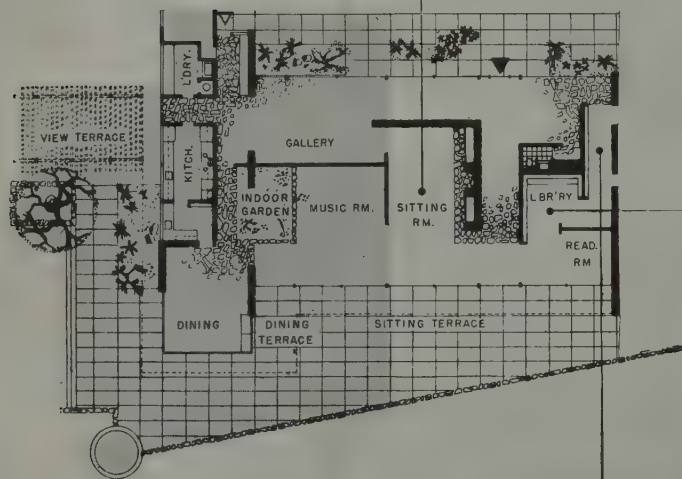
Skylighted garden room (below) lies between dining room, background, and carpeted music area. Low hood and exposed ceiling joists cut glare from skylight, concentrate sun on planted area. This dropped ceiling continues outside at left to shelter a porch for outdoor dining.



SECTION THROUGH LIVING AREA



Snug sitting room is an 8'-high stone cave within 11' glass tent of the living areas. Long strip skylight with built-in artificial lights brightens dark corner farthest from glass gallery wall. Ceiling strips on either side of fireplace look similar but house artificial lights only.



Wall of books shields bedroom hall from entry, owner's bedroom door from library and living areas. (Owner specified bedroom-study access so he could read or work any time of day or night.) Note valance lights over bookshelves.



Quiet end of living zone is separated from other areas by a cross hall (left, above) leading from front door to back terrace. Reading area (foreground) is separated from office by freestanding bookshelves. Note how circulation space is floored with slate, sitting space with carpet, work space with cork. Plane of masonry wall setting off bedrooms (right) continues through glass to shield their terraces from main terrace.

The other living rooms are warm and intimate

Take a good look at the houses shown on these six pages. They are the five most popular Five Star houses that *Better Homes and Gardens* has published since 1952. Two have already appeared in this magazine.

Does the old dodge that these are magazine dream houses that everybody admires and nobody buys apply to these houses? Most certainly not. Of the over 4 million families who regularly read *BH&G*, 10,520 bought plans for these five houses alone.

Two of the designs are products of the merchant builder and were sold in volume with record-smashing speed.

One is so popular that a similar plan has been adopted by the Lumber Dealers Research Council for its preassembled wall-panel system (see p. 132).

Most significant points these houses make:

- ▶ The desire for up-to-date design has made rapid strides in the last few years.
- ▶ Public taste is a lot further ahead than most builders are inclined to think.
- ▶ Popularity of these houses is a vote of confidence in contemporary design.

The evidence: in the year when these five appeared *BH&G* readers were given a wide range of choice including houses with living rooms facing the street, with high-pitched roofs, with two stories, with shuttered windows of many-lighted panes, with a minimum of open planning and without window walls. Yet the readers decided overwhelmingly in favor of the houses you see here—so much so in fact that last year *BH&G* sponsored a “Readers’ Choice” house and this year is promoting a “Home for All America”—both of which closely follow the check list of features of these five best sellers.



The houses your customers want

Here is what this means to people in the building industry:

For builders—these houses reflect the way Americans want to live today—informally, with plenty of space around them indoors and out, and with less drudgery. Each house has some space-making technique that builders could well adopt to give customers more house for their money.

For architects—here is ammunition to convince builder clients that straightforward execution of design (a minimum of applied decoration, a maximum of built-in livability) not only looks better but sells faster.

For mortgage bankers—here is evidence of a presold market on house design. Home buyers, given a choice, choose up-to-date designs that do not emulate a style of the past. Houses that are not out of style before they are completed have higher future marketability.

For housing officials—people who want these houses live in all parts of the country, should not have to—as one VA official put it—“move to California.”

*Here are the chief features of five most popular houses
Check your own designs against them:*

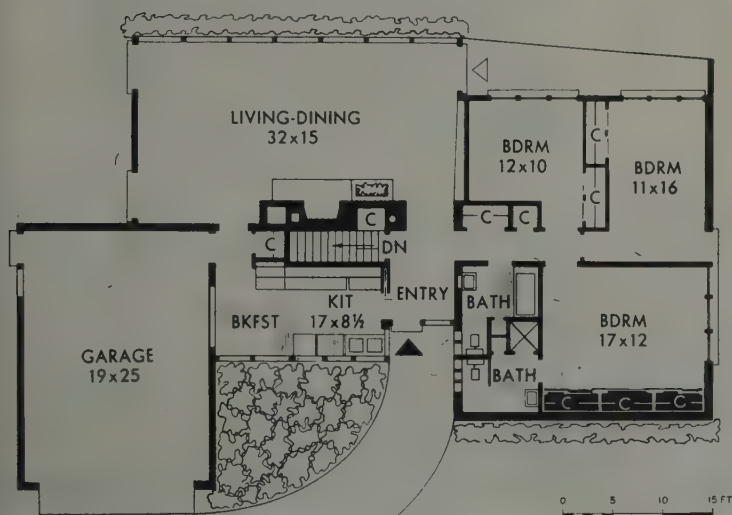
- ☐ Rear or side living room
- ☐ Minimum of three bedrooms
- ☐ One-story on slab
- ☐ Open planning
- ☐ Low-pitched roof
- ☐ Provisions for outdoor living
- ☐ Bigger and more windows
- ☐ Wide overhangs on two sides
- ☐ Central entrance
- ☐ In four of the five, sloping ceilings
- ☐ In two, two bathrooms

(and one has roughed-in plumbing for added half-bath)

Other significant trends: beamed ceilings, walls of glass instead of mere holes punched in the walls, integral door and window units.



1. **Modern rear wall**, almost completely of glass, opens whole living area to garden and lawn. Wing wall (at left) shelters adjacent bedroom from neighbors; low brick wall, garage insure seclusion for dining terrace (at right). Now see more conservative front elevation at the right.



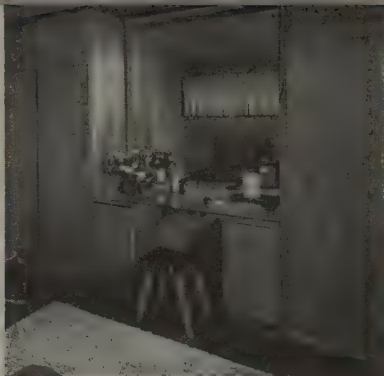
Photos: Hodrich-Blesing



Spacious master bedroom with its own bath gets more floor space because Architect Goodwin B. Steinberg cleverly tucked three closets under overhang, gained bedroom-bath privacy by facing no windows toward street. To add space to breakfast area, he recessed cabinets between studs in partition between garage and kitchen. House has partial basement for indoor recreation area as big as living area above it. Double-glazed window wall (large photo) runs full length of sloping-ceiling, exposed-beam living room.

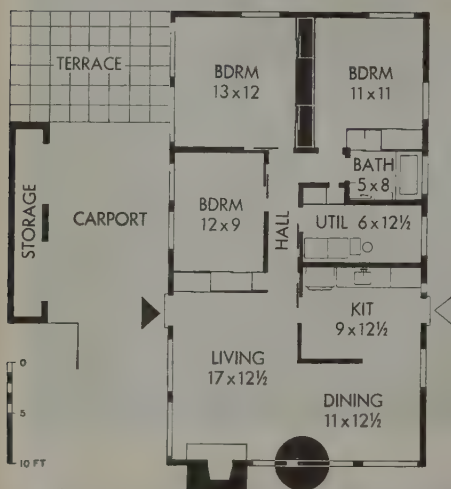


Conservative front elevation belies openness and informality of rear, fits well in suburban Glencoe, Ill. Breakfast area is partially sheltered by three-sided front garden court, deep setback. Black area on plan shows space-saving feature in bedroom (photo top).

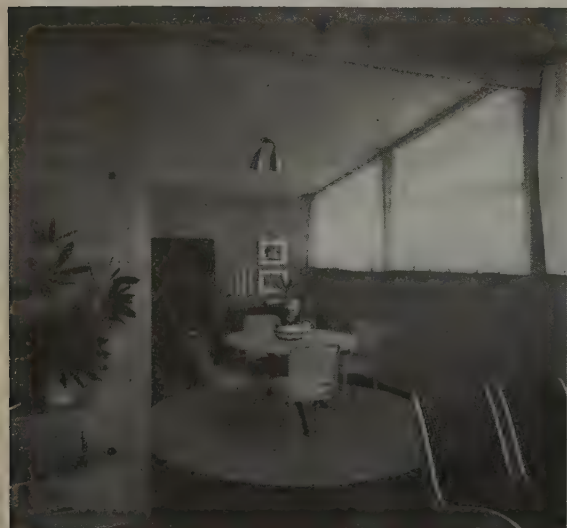


Storage walls were shop-finished, installed under post-and-beam structure which formed one big room where workman could complete interior. Note built-in vanity between closets made of thin, nonload-bearing walls. Dark areas on plan denote other space-enlarging techniques (shown in photos).

2. Storage walls, bigger-house look of contemporary design spell sales success throughout Midwestern states



Photos (except construction below): Hedrich-Blessing



Psychological space is added to dining area by sloping ceilings, windows that follow roof line and allow view to sky. Area is open to kitchen and living room. Though only 1,186 sq. ft., house looked bigger, was felt to be a bargain at \$14,200. In ten months 209 were sold in the Ridgewood subdivision near St. Louis. Design is by Builder Burt Duenke, Designer Ralph Fournier.



Flexibility of house is direct result of post-and-beam design: Duenke prefabricated redwood panels to go between doubled 2" x 4" posts 6'-4" o.c., thus buyers could get solid panels, window walls or high strip windows where they wanted them. Chimneys and fireplaces could also be switched in odd variety. Note this house plan has fireplace is outside perimeter of house to save space.

William N. Hopkins; Hedrich-Blessing



Terrace is secluded from street by carport storage shed, could easily be covered by low-cost awning or corrugated translucent plastic for weather protection. Architects Howard T. Fisher & Associates wisely placed outside door to living room at side to cut steps from kitchen when meals are served on terrace. The 58 sq. ft. storage shed is unheated, economical to build, big enough for all bulk storage a family would need. This low-cost house trades in ornamental gimmicks for living space throughout.



Economy house sheds gimmicks for more living space, flexibility



Overhang on one-pitch roof acts like brim over eyes on front elevation (below), angles upward at rear to give living area higher ceiling, more spacious feeling. Kitchen area is triple-purpose: besides usual appliances it includes space for washer and drier and an area for small children's play under a busy mother's eye.

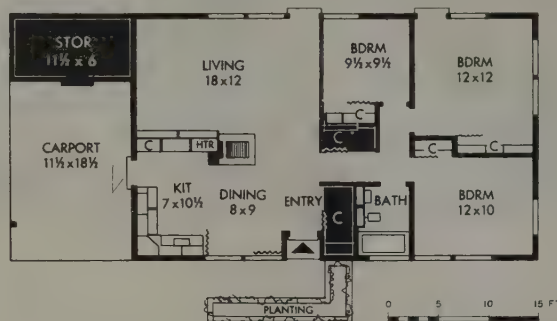
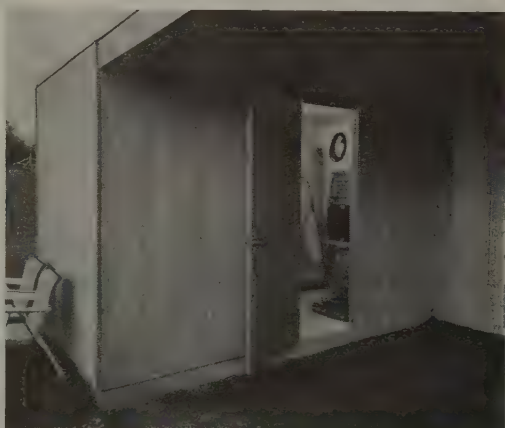
Folding door bisects double-size bedroom, converts area into indoor playground. Exposed beams run throughout house; roof is of an excelsiorlike insulating board topped with tar and gravel. One-pitch roof eliminates cost of peaks; only flashing is around chimney. Dark areas on plan pinpoint flexible feature, area-adding ideas in photos.





Photos: (above) Lionel Freedman; (below) Lazarnick

Straightforward exterior of Levittowner envelops 1,000 sq. ft. of living space. Note window alignment, wrap-around shingle treatment, eliminating gutters. House was first built in Levittown, Pa. in 1952. Black areas on plan indicate storage areas (shown in photos).

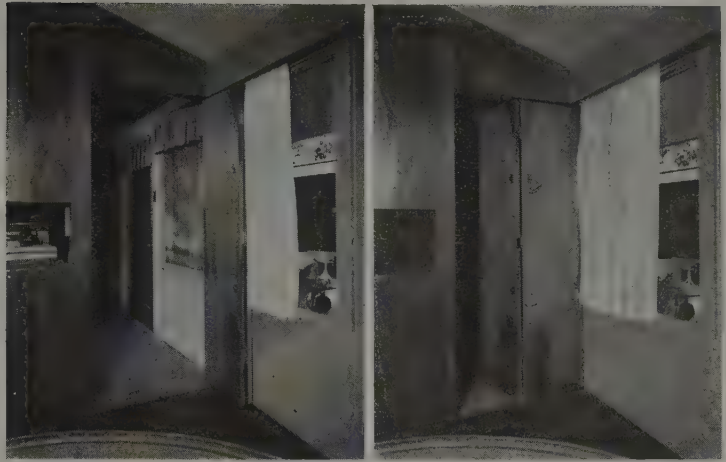


Economical way to give people storage they need is to provide out-of-house area for such bulky items as lawn mower, roller. Designer Alfred Levitt achieved further economies by flattening roof covering carport and storage shed, used hinged rather than sliding door (but latter would have made accessibility to area easier when car is in port). Typical Levitt bargain, house sold for \$9,990 at 350-per-week clip. Even when prices rose to \$10,990 in late 1953, house sold fast.

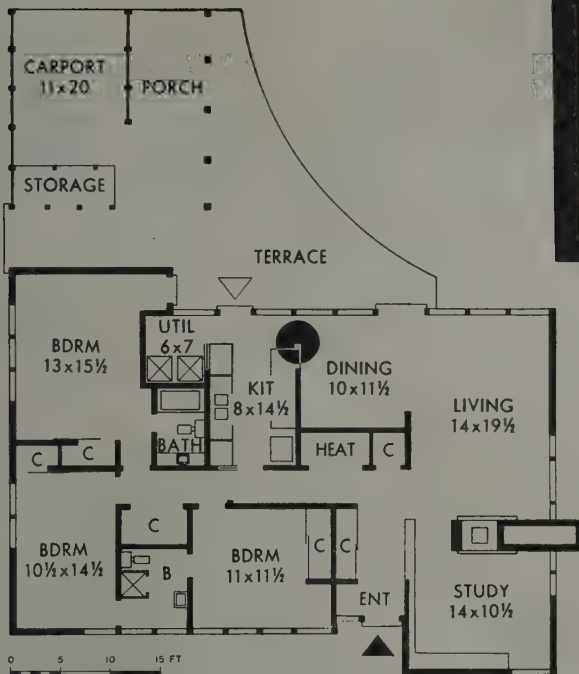
4. Basement or attic equivalent sold Levitt one-story bargain fast



Seven storage areas total nearly 150 sq. ft. Biggest closet (left) is near front door, can hold coats and cleaning equipment. Because Levitt roughed in plumbing, closet can be turned into added half bath as family grows. Hall closet (right) has handy shelves built in, room for more shelves above clothes-hamper cage. All interior closets have low-cost folding-curtain doors, simple framing. Features of house or plan itself have been adopted by builders in many parts of the East.



Open when owner wants it open, closed when he wants it closed, door between kitchen and dining area can be folded back against itself. Quadrant latches in locked position permit full door to be opened or closed. Now-you-see-it, now-you-don't technique also is applied at pass-through, equipped with sliding door. Though house was designed for architect's own family, it solves problems of today's bigger American family, has two full baths, plenty of storage, efficient kitchen, three bedrooms, family room or study. Rixman made most of wide overhangs in front by recessing seven windows under them, allowing bookcase in study to jut under most of overhang where there was only one window. Note in plan that traditional porch makes comeback in rear under carport roof.

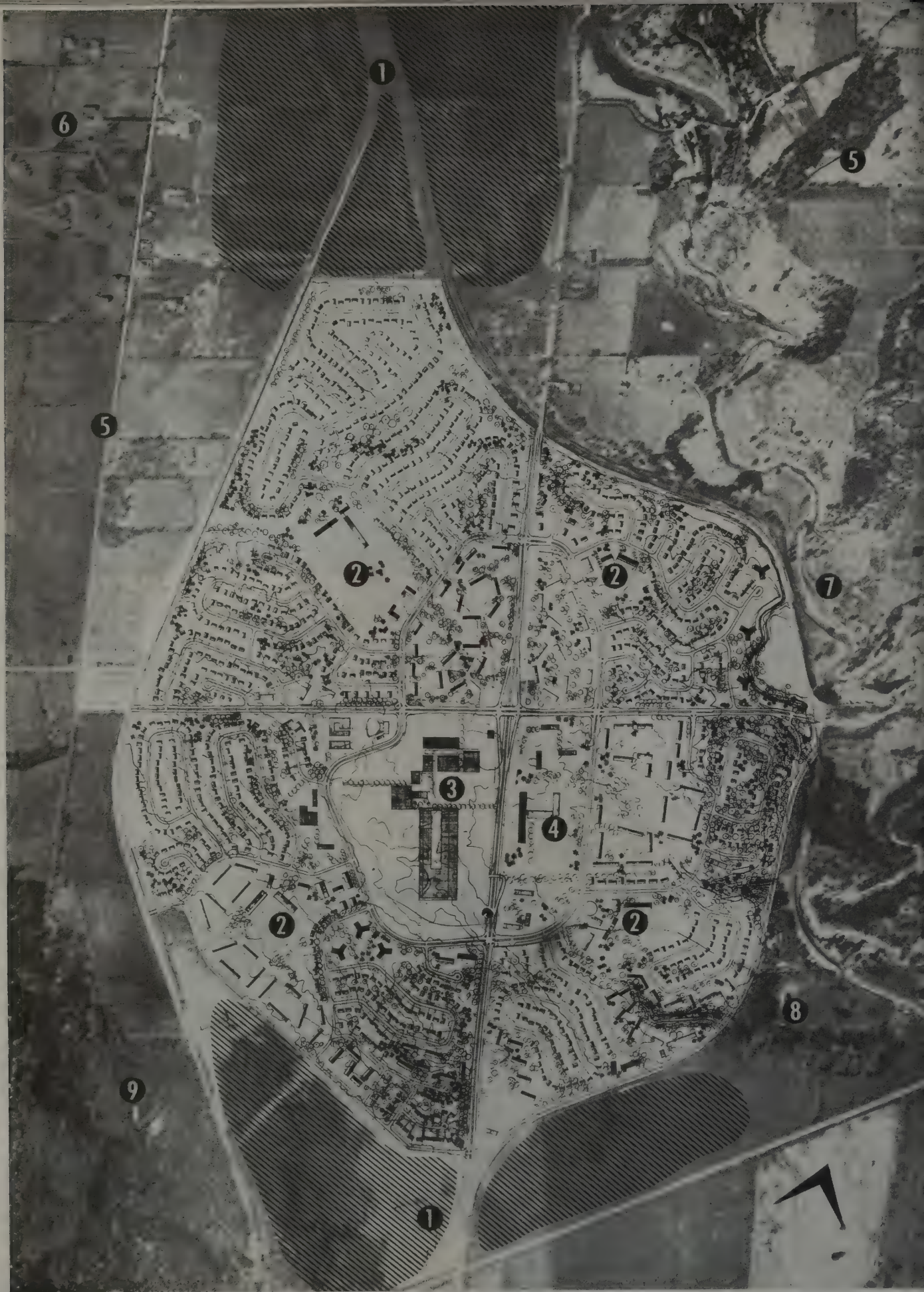


5. Transitional house provides open- or closed-plan kitchen-dining arrangement

Photos: Hedrich-Blessing; courtesy Better Homes & Gardens

To make the transition from two-story colonial to one-story convenience for his own family, St. Louis Architect Diedrich F. Rixman, AIA, designed this house (at right) not to look conspicuous in a conservative neighborhood. Black area on plan circles "transitional" approach to open planning.





Business builds a city

On 3,000 acres of Canadian farmland grows a new town
planned for industry,
commerce and 35,000 residents

In the aerial view (at left) you see the first town of its kind in North America: a well-balanced satellite city, complete with its own industries, conceived and built entirely by a real estate developer.

Nestled between the two forks of the Don River 7 mi. northeast of downtown Toronto, the new town of Don Mills is a planner's dream coming true. In minimizing the risks of an investment that may eventually total \$200 million, its industrial-developers aim at a healthier balance of industry, housing and commerce than any US or Canadian planned community has achieved to date.

Industry: the developers of Don Mills have supplied the missing link sought by so many new-town planners—a *broad industrial base*. Already eight factories are in operation and a dozen more are on the way, providing jobs within the community and lightening the tax load on Don Mills residents.

Housing: the developers hope to lengthen the community's economic life through a *natural variety of housing*. Instead of bleak uniformity which ultimately lowers property values, they have planned 12,000 houses and apartments varied in price and design, built by many different architect-builder teams (17 are at work in Don Mills this year). To make sure housing will not be out of date in a few years, it must conform to design standards more contemporary than anything Toronto has yet seen (see next four pages).

Commerce: Don Mills Developments, Ltd. will cash in on the long-term prosperity thus created by expanding the convenience stores now abuilding into a full-fledged regional shopping center, which will be the developers' main source of long-term income.

Metropolis in miniature (left) closely integrates all elements needed by population estimated to reach 35,000 to 40,000 in 1960. Industrial districts (1) at north and south take advantage of flat land near railroad junctions. (Main track at right runs out of sight in ravine; interswitch track at left will be buffered by planting.) Residential neighborhoods (2) are grouped around schools and churches; northwest quadrant is nearly complete. Con-

struction has started on shopping and civic center (3). Scheduled for future are high school (4), higher-income residential neighborhoods with schools and shops (5), country club (6). Town's \$1,250,000 sewage treatment plant (7) is now in its second phase of expansion, bordering mile-long recreational lake to be formed by damming east fork of Don River. Parkland and sports bowl (8) and wooded area (9) complete the greenbelt ring.



Townsite is long-empty pocket of land in path of Toronto's growth. Suburbs on three sides provide labor pool for industry, nearby market for housing and retail goods (one dot equals 100 persons).



The team: president of Don Mills Developments, Ltd. is **Karl C. Fraser** (left), 53, former Canadian wartime mutual aid administrator and long-time assistant to **E. P. Taylor**, Toronto industrialist backing the venture as board chairman. Fraser started the Don Mills idea seven years ago, traveled to dozens of US cities to study urban development at first hand before ground was broken. Assisting Fraser in industrial and commercial development is **James F. Harris** (center, standing), 34, former industrial analyst for Canadian National Railways. Director of planning is **Macklin L. Hancock** (right), 28, trained at Harvard's School of Design, assisted by Architect **Douglas Lee** and a design staff. Vice President and housing expert is **Angus McClaskey** (not shown), former regional chief of Canada's Central Mortgage and Housing Corp. Original studies for Don Mills were made by **John Layng**, Toronto architect and town planner; consultants include **Sir William Holford**, noted British town planner, **Hideo Sasaki** of Harvard, members of the Community Builders' Panel of the **Urban Land Institute**. Seated (above) is **Arthur Wenstock**, first of 17 housebuilders to sign.



17 architect-builder teams create one good community

Here is an idea for small-volume housebuilders anywhere: band together to meet the growing competition from big builders who offer house and community in one attractive package. Under the developers' leadership, builders in Don Mills are achieving a far more salable product than any one of them could alone. First, they offer well-planned neighborhoods: each of the four residential quadrants (two are shown at right) groups houses around a central school and park space. Greenbelt fingers open up the economical pattern, act as walkways for school children and shoppers and as buffer planting to shield houses from major roads. Loop and cul-de-sac streets with T intersections make for quiet, safety and visual interest, feed into four-lane ring road linking neighborhoods with town center. On this master plan builders buy groups of improved lots (\$2,750 for a 60'-wide, single-family lot). They are required to build within nine months, employ architects and have designs approved by the developers' architectural department, which then sites all houses and prescribes harmonious color schemes. Majority of the first 561 houses are single-family to fit Toronto's pattern of 70% home ownership, priced at \$11,200 to \$17,000 and offered first to the town's new factory workers. Goal for the four central quadrants: 1,300 single-family units; 750 units in multifamily houses; 1,475 rental units in garden and tower apartments. With nearby industries sharing assessments, average resident's taxes are only \$200 a year.

Balconied apartments cover only 20% of their sites

Photos: Panda



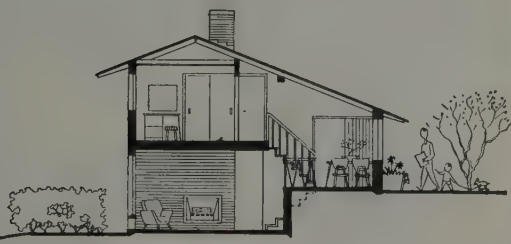


Attractive streets result from placing power and telephone lines along rear lot lines, staggering house setbacks from 25' to 40'. Existing trees are preserved, front lawns of all houses sodded before being sold. Each builder has both sides of a street to keep houses related, achieves variety through different elevations and siting. Architects represented here: James Murray, George Hassig, Michael Bach.

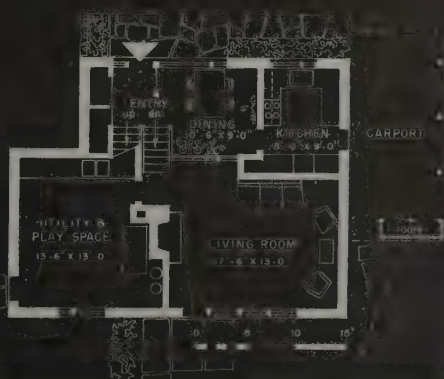
Split-level plans make good use of sloping lots

The success of the developers' big \$15 million shopping center will depend on the long-term prosperity of the whole community. So, to keep up tomorrow's property values, they have insisted that builders go as far in contemporary design as today's buyers will reach. They have urged their builders to use economical split-level and daylight-basement plans, particularly on the rolling land where such models work best. Typical split level (right and below) boasts these highly salable features:

- ▶ From the front it looks like a long, low-slung, one-story house.
- ▶ Front kitchen has a view of street and front walk; adjacent dining space could be used for supervised children's play.
- ▶ Bedrooms are upstairs and in back for privacy.
- ▶ Living room and multipurpose room are downstairs, opening at ground level to an outdoor living terrace that faces away from the street. Floor-to-ceiling glass gives the lower level plenty of light, extends its apparent size to include the garden.
- ▶ There are few side windows facing adjoining houses.
- ▶ Bedrooms and living room face southeast to prevailing breezes, view of wooded ravine left as a natural greenbelt.



Section of house at right shows bedrooms over living area, dining area and kitchen at entrance level. Architect: James Murray. Builder: George Slightham.





Photos: (below) G. A. Milne; (others) Panda

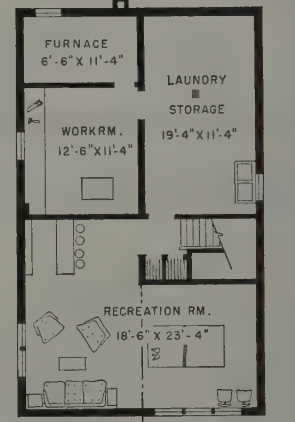


Alternate elevation has long side to street

Bargain in space is this 2,000 sq. ft. house for \$13,400, including lot. Designed by Architect James Murray and built by Greenwin Construction Co., it is a complete three-bedroom house on one level, with another 1,000 sq. ft. of recreation and utility space below. As in the Techbuilt house (see H&H, Feb. '54), basement is pulled out of ground for more light, total wall height reduced, entry placed at the intermediate level.



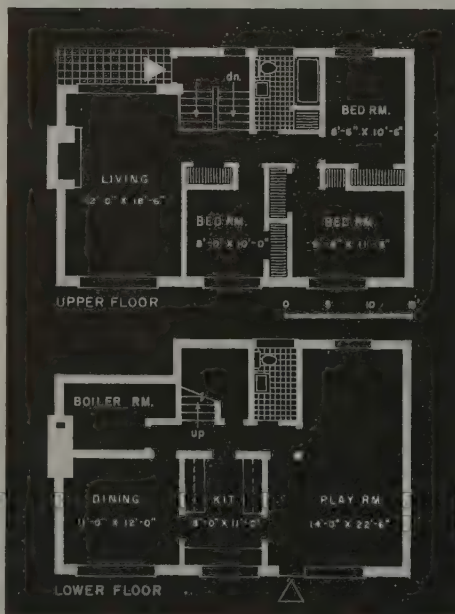
MAIN FLOOR



BASEMENT

0 5 10 15 FT.

Daylight basements yield grade-A living space at low cost



Long window lights basement recreation room in another model

Sloping-lot model (left) by Architects Oring & Boake, and McNeill Construction Co., has grade entry, bedrooms and formal living room half a flight up, messier activities grouped downstairs where kitchen and playroom open to a terrace on the downhill side.



Wood veneer on block unifies window wall by Architects Crawford & Hassig, Glenayre Co.

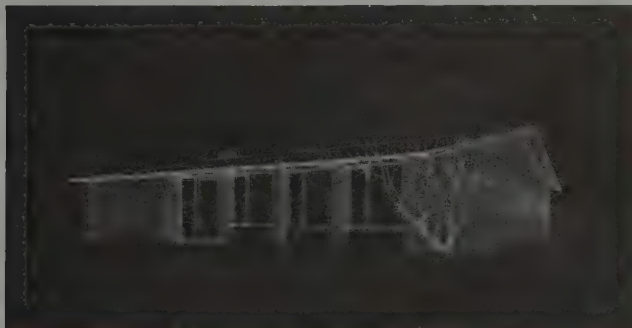
Panelized exteriors give economy, design unity

All houses are brick veneer on concrete block, satisfying local code requirement of masonry construction. To get big windows within this design limitation, architects extended openings right up to the top plate, eliminating expensive steel lintels to support masonry. To avoid windows that look like holes punched at random in a brick wall, window frames extend from roof to ground, incorporating many separate glass areas and solid panels in a single section of wall.



Grouping front door, dining-room window and wood panel underneath makes a coherent composition of three different elements. This is the front of the split-level house pictured on p. 149.

Rhythmic panelizing: Architect Bach, Torfar Construction Co.



PLANK-AND-BEAM SYSTEMS FOR RESIDENTIAL CONSTRUCTION: part two

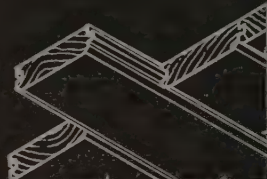
THEORY FOR DESIGN OF PLANKING

All planking computations are based on the use of 2x6 or 2x8 members, tongue-and-grooved or splined, laid flat, and blind and face-nailed. Four jointing types are shown below.

with a moisture content of not more than 14 to 19 percent should be used. Planks should be primed as soon as they are on the job with whatever finish is to be used. After installation of the planking, insulation and roofing should be applied as soon as possible.



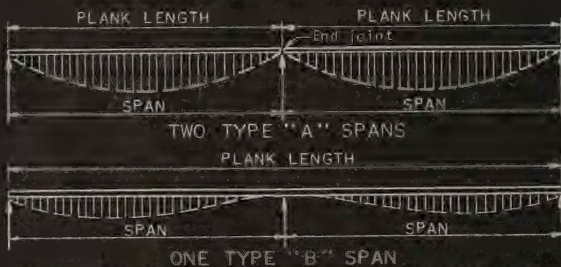
TONGUE AND GROOVE

TONGUE AND GROOVE
WITH V-JOINTGROOVED AND SPLINED
WITH EXPOSED SPLINEGROOVED PLANK WITH
MOLDED SPLINE INSERT

PLANK JOINTING TYPES

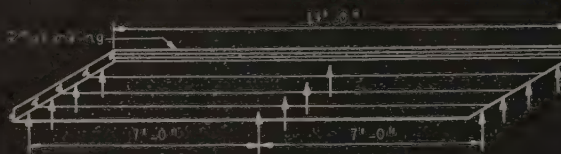
Design factors to consider are:

1. Strength of the planks to carry an evenly distributed live load plus an allowance of 10 lbs. per sq. ft. dead load, or weight of the materials.
2. Stiffness to overcome objectionable deflections.



DEFLECTION DIAGRAMS FOR EVENLY DISTRIBUTED LOADS

Plank-and-beam framing becomes structurally more efficient when continuous spans are used to develop extra strength.



PLANK AND BEAM FRAMING



DEFLECTION IN 11'-4" EQUAL TO
DEFLECTION IN ABOVE DIAGRAM
STRENGTH IN 10'-4" EQUAL TO
STRENGTH IN ABOVE DIAGRAM
CONVENTIONAL FRAMING

A COMPARISON
OF DEFLECTION
AND STRENGTH
OF MEMBERS
LOADS EQUAL
AND EVENLY
DISTRIBUTED

Beams designed as continuous must be built as such or serious failure of members will result. It is recommended that careful inspection of construction be made in all cases where plank-and-beam framing is used.

For any number of spans desired the planking can be laid out in one of the following ways.



TYPE "A" SINGLE SPAN

TYPE "B" PLANKS CONTINUOUS OVER 2 EQUAL
SPANS (nearly 22 times as stiff as Type "A")TYPE "C" PLANKS CONTINUOUS OVER 3 EQUAL
SPANSTYPE "D" PLANKS NON-CONTINUOUS AND
STAGGERED OVER 3 EQUAL SPANSTYPE "E" END SPAN NOT EQUAL TO OTHER
SPANS

PLANK SPANNING TYPES

If the end span is less than 92% of other plank spans, TYPE E should be used. If the end span is greater than 92%, TYPE D should be used.

PLANK-AND-BEAM SYSTEMS FOR RESIDENTIAL CONSTRUCTION: part two

ROOF AND FLOOR PLANK SELECTION

TABLES ARE BASED ON THE FOLLOWING:

1. All planks are 2 x 6 or 2 x 8 tongue-and-grooved or splined members.
2. Loads are uniformly distributed in pounds per square foot (PSF) on planking.
3. Deflections of 1/240 of span for roof planking and 1/360 of span for floor planking have been arbitrarily used and have been set to avoid deflections which might be objectionable.

TABLES SHOULD BE USED AS FOLLOWS:

1. Select the plank spanning type desired (type A, B, C, D, or E, as previously illustrated).
2. Assume the length of span desired.
3. Determine the total roof or floor load, in pounds per square foot, (which will exist).
4. Refer to TABLE 1-ROOF AND FLOOR PLANKING to find a group number. Each group number represents a group of species and grades of wood which have a similar modulus of elasticity.
5. Refer to TABLE II - ACCEPTABLE SPECIES AND GRADES OF LUMBER. Under each group number are listed the names and grades of lumber suitable for use under the conditions previously determined.
6. A selection may be made from any group as long as it has a higher modulus of elasticity than the group designated in the tables on roof or floor planking.

TABLE 1. ROOF AND FLOOR PLANKING

TO DETERMINE THE GROUP NUMBER (SEE TABLE II) OF THE SPECIES AND GRADES OF WOOD HAVING A SATISFACTORY MODULUS OF ELASTICITY FOR A GIVEN CONDITION

TOTAL LOAD=	ROOF PLANKING, DEFLECTION=1/240 OF SPAN																FLOOR PLANKING DEFLECTION=1/360 OF SPAN			
	30 PSF				40 PSF				50 PSF				50 PSF							
	PLANK TYPE				PLANK TYPE				PLANK TYPE				PLANK TYPE							
LENGTH OF PLANK	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D				
6'-0"	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1				
6'-6"	1	1	1	1	1	1	1	1	2	1	1	1		1	1	3				
7'-0"	1	1	1	1	1	1	1	1	4	1	1	1		1	2	5				
7'-6"	1	1	1	1	3	1	1	1		1	1	3		2	3					
8'-0"	1	1	1	1		1	1	2				5		2						
8'-6"	3	1		1			3													
9'-0"	5	1		1		1					3									
9'-6"		1		3		1					4									
10'-0"				4		3														

NOTE: Numbers refer to group numbers in TABLE II

TABLE II. ACCEPTABLE SPECIES AND GRADES OF LUMBER FOR ROOF AND FLOOR PLANKING

ABBREVIATIONS:

MAS = maximum allowable stress
j & p = joists and plank
PSI = pounds per square inch
f = extreme fiber stress in bending in PSI

GROUP 1 - MODULUS OF ELASTICITY = 1,100,000 PSI

M A S	COMMERCIAL GRADE NAME	SPECIES
f=1,300	Select structural j & p	Hemlock, eastern
f=1,200	Prime structural j & p	
f=1,100	Common structural j & p	
f=950	Utility structural j & p	

GROUP 2 - MODULUS OF ELASTICITY = 1,200,000 PSI

M A S	COMMERCIAL GRADE NAME	SPECIES
f=1,250	No. 1 common	Cypress, southern coast type (tidewater red) and inland type
f=1,700	1,700f - grade j & p	
f=1,300	1,300f - grade j & p	
f=1,200	Prime structural j & p	Pine, Norway
f=1,100	Common structural j & p	
f=950	Utility structural j & p	Redwood (California)
f=1,700	Dense structural j & p	
f=1,300	Heart structural j & p	Spruce, eastern
f=1,450	1,450f - structural grade j & p	
f=1,300	1,300f - structural grade j & p	
f=1,200	1,200f - structural grade j & p	

GROUP 3 - MODULUS OF ELASTICITY = 1,400,000 PSI

M A S	COMMERCIAL GRADE NAME	SPECIES
f=1,600	1,600f select struct. framing j & p	Hemlock, west coast
f=1,450	1,450f - No. 1 j & p	
f=1,100	1,100f - No. 2 j & p	

GROUP 4 - MODULUS OF ELASTICITY = 1,500,000 PSI

M A S	COMMERCIAL GRADE NAME	SPECIES
f=1,900	Structural j & p	Douglas fir, inland region
f=1,450	Common structural j & p	
f=2,150	Select structural j & p	
f=1,900	Structural j & p	Larch
f=1,450	Common structural j & p	

GROUP 5 - MODULUS OF ELASTICITY = 1,600,000 PSI

M A S	COMMERCIAL GRADE NAME	SPECIES
f=2,150	Dense select structural j & p	Douglas fir, coast region
f=1,900	Select structural j & p	
f=1,700	1,700f - Dense No. 1 j & p	
f=1,450	1,450f - No. 1 j & p	Douglas fir, inland region
f=1,100	1,100f - No. 2 j & p	
f=2,150	Select structural j & p	
f=2,400	Dense select structural j & p	Pine, southern
f=2,000	Dense structural j & p	
f=1,800	Dense struct. sq. edge & sound j & p	
f=1,600	Dense No. 1 structural j & p	Pine, southern longleaf
f=1,400	No. 1 dense 1,400f j & p	
f=1,200	No. 1 1,200f j & p	
f=1,700	No. 1 dense j & p	Pine, southern longleaf
f=1,450	No. 1 j & p	
f=1,250	No. 2 dense j & p	
f=1,100	No. 2 j & p	Pine, southern longleaf
f=2,400	Select structural longleaf j & p	
f=2,000	Prime structural longleaf j & p	
f=1,800	Merchantable struct. longleaf j & p	Pine, southern longleaf
f=1,600	Struct. sq. edge & sound longleaf j & p	
f=1,400	No. 1 structural longleaf j & p	
f=1,200	No. 1 longleaf 1,400f j & p	Pine, southern longleaf
f=1,700	No. 1 longleaf j & p	
f=1,250	No. 2 longleaf j & p	

PLANK-AND-BEAM SYSTEMS FOR RESIDENTIAL CONSTRUCTION: part two

STRUCTURAL DESIGN OF BEAMS

The following graphs are to aid in the selection of wood species and sizes for roof and floor beams. For roof beams the maximum deflection is limited to 1/240 of the beam span and the graphs cover 20, 30, and 40 PSF (pounds per square foot) uniformly distributed live loads, each with a 10 PSF dead load. For floor beams the maximum deflection is limited to 1/360 of the beam span, and the graphs cover a 40 PSF uniformly distributed live load with a 10 PSF dead load. The species and grades of lumber suitable for the beam

sizes and spans indicated are listed below each graph.

The graphs are set up to cover bending, and selections made from them must be checked to determine whether or not horizontal shear will govern the size of the beam. If the beam has an L/h (L=beam length in feet and h=beam depth in inches) equal to or greater than the L/h for the species and grade of lumber desired, the horizontal shear does not govern, and therefore the selection made from the graph is valid.

ROOF BEAMS

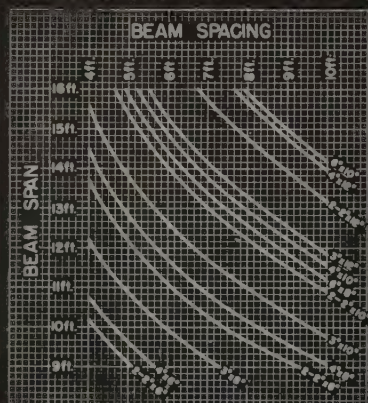
MAXIMUM DEFLECTION LIMITED TO 1/240 OF THE BEAM SPAN

GRAPHS NO. 1, 2 AND 3 ARE FOR A 20 PSF UNIFORMLY DISTRIBUTED LIVE LOAD AND A 10 PSF DEAD LOAD EQUALING A TOTAL LOAD OF 30 PSF

GRAPHS NO. 4, 5 AND 6 ARE FOR A 30 PSF UNIFORMLY DISTRIBUTED LIVE LOAD AND A 10 PSF DEAD LOAD EQUALING A TOTAL LOAD OF 40 PSF

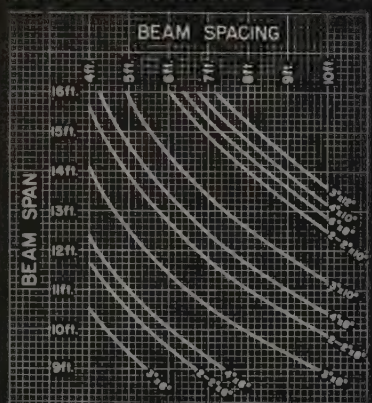
GRAPHS NO. 7, 8 AND 9 ARE FOR A 40 PSF UNIFORMLY DISTRIBUTED LIVE LOAD AND A 10 PSF DEAD LOAD EQUALING A TOTAL LOAD OF 50 PSF

GRAPH #1 TOTAL LOAD= 30 PSF



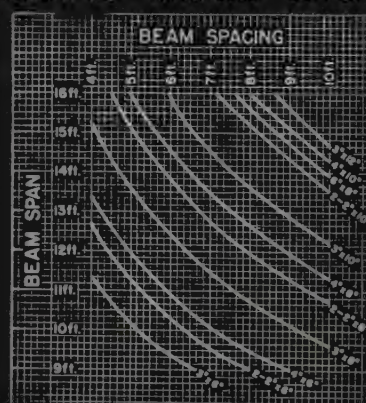
SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,000f - No. 2 joists & plank	0.83
Hemlock, eastern	Common structural joists & plank	1.53
Hemlock, west coast	1,000f - No. 2 joists & plank	1.02
Pine, Norway	Common structural joists & plank	1.22
Pine, southern	No. 2 joists & plank	1.08

GRAPH #2 TOTAL LOAD= 30 PSF



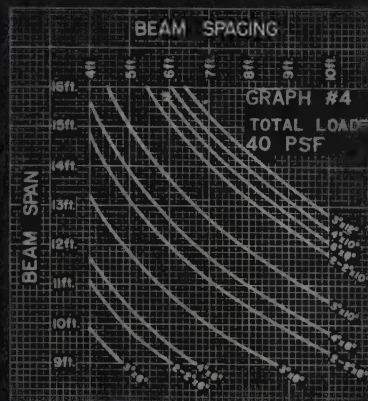
SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,450f - No. 1 joists & plank	1.01
Douglas fir, inland region	Common structural joists & plank	1.27
Hemlock, west coast	1,450f - No. 1 joists & plank	1.21
Larch	Common structural joists & plank	1.01
Pine, southern	No. 1 joists & plank	0.97
Spruce, eastern	1,450f structural grade joists & plank	1.10

GRAPH #3 TOTAL LOAD= 30 PSF



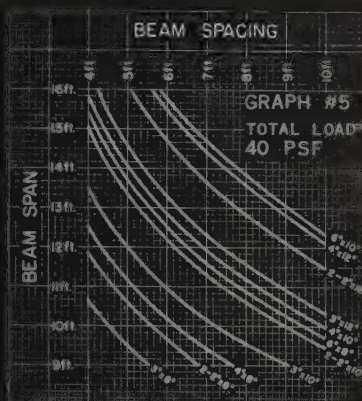
SPECIES	GRADE	MIN L/h
Pine, southern	No. 1 dense joists & plank	0.94
Pine, southern longleaf	No. 1 longleaf joists & plank	0.94

PLANK-AND-BEAM SYSTEMS FOR RESIDENTIAL CONSTRUCTION: part two

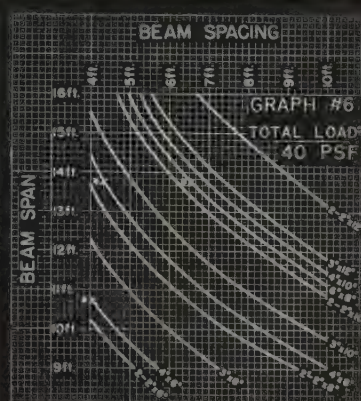


SPECIES	GRADE	MIN L/h
Pine, southern	No. 1 dense joists & plank	0.94
Pine, southern	No. 1 longleaf longleaf joists & plank	0.94

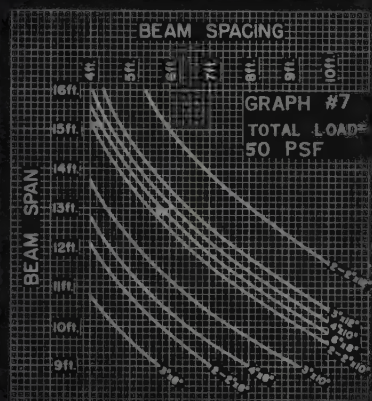
* On graph indicates the beam span beyond which the deflection will exceed 1/240 of the span.



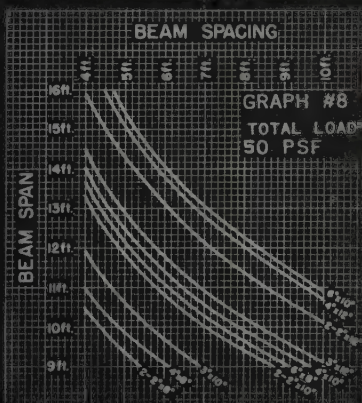
SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,100f - No. 2 joists & plank	0.83
Hemlock, eastern	Common structural joists & plank	1.53
Hemlock, west coast	1,100f - No. 2 joists & plank	1.02
Pine, Norway	Common structural joists & plank	1.22
Pine, southern	No. 2 joists & plank	1.08



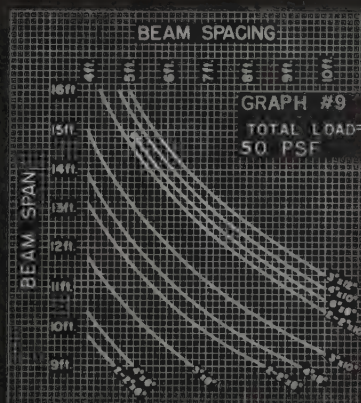
SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,150f - No. 1 joists & plank	1.01
Douglas fir, inland region	Common structural joists & plank	1.27
Hemlock, west coast	1,450f - No. 1 joists & plank	1.21
Larch	Common structural joists & plank	1.01
Pine, southern	No. 1 joists & plank	0.97
Spruce, eastern	1,450f structural grade joists & plank	1.10



SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,450f - No. 1 joists & plank	1.01
Douglas fir, inland region	Common structural joists & plank	1.27
Hemlock, west coast	1,450f - No. 1 joists & plank	1.21
Larch	Common structural joists & plank	1.01
Pine, southern	No. 1 joists & plank	0.97
Spruce, eastern	1,450f structural grade joists & plank	1.10



SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,100f - No. 2 joists & plank	0.83
Hemlock, eastern	Common structural joists & plank	1.53
Hemlock, west coast	1,100f - No. 2 joists & plank	1.02
Pine, Norway	Common structural joists & plank	1.22
Pine, southern	No. 2 joists & plank	1.08



SPECIES	GRADE	MIN L/h
Pine, southern	No. 1 dense joists & plank	0.94
Pine, southern	No. 1 longleaf longleaf joists & plank	0.94

* On graph indicates the beam span beyond which the deflection will exceed 1/240 of the span.

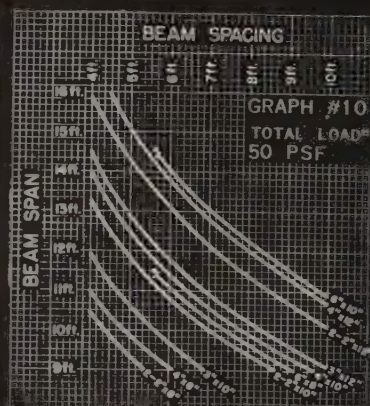
These five pages conclude our story on plank-and-beam construction begun last month in **HOUSE & HOME**. Mr. Sleeper's details demonstrate the economies inherent in using long planks in several continuous spans.—ED.

PLANK-AND-BEAM SYSTEMS FOR RESIDENTIAL CONSTRUCTION: part two

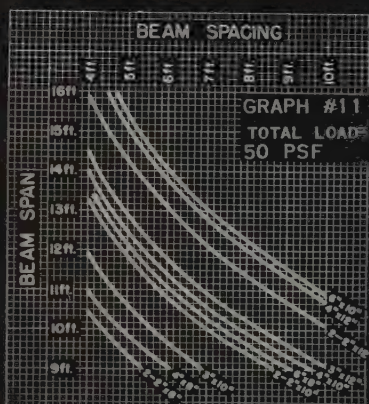
FLOOR BEAMS

MAXIMUM DEFLECTION LIMITED TO 1/360 OF THE BEAM SPAN

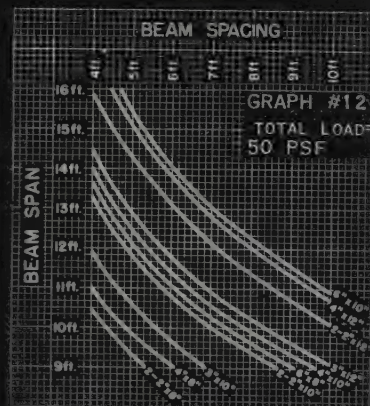
THE FOLLOWING GRAPHS ARE FOR A 40 PSF UNIFORMLY DISTRIBUTED LIVE LOAD AND A 10 PSF DEAD LOAD, EQUALING A TOTAL LOAD OF 50 PSF



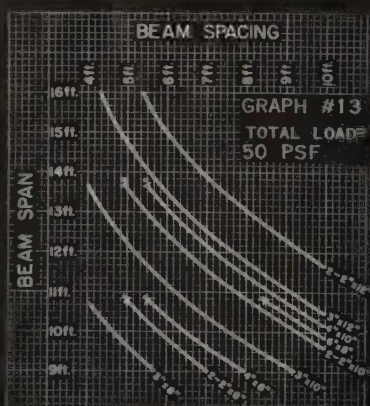
SPECIES	GRADE	MIN L/h
Pine, Norway	Common structural joists & plank	1.22



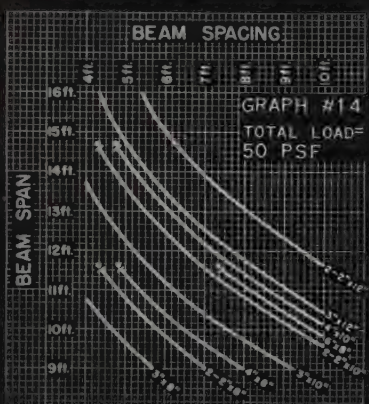
SPECIES	GRADE	MIN L/h
Redwood, west coast	1,200 f. No. 2 joists & plank	1.02



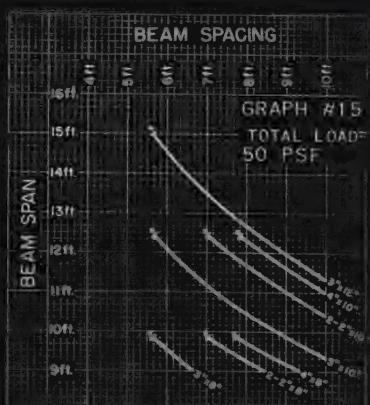
SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,200 f. No. 2 joists & plank	0.83
Pine, southern	No. 2 joists & plank	1.08



SPECIES	GRADE	MIN L/h
Douglas fir, inland region	Common structural joists & plank	0.96
Larch	Common structural joists & plank	1.01



SPECIES	GRADE	MIN L/h
Douglas fir, coast region	1,200 f. No. 1 joists & plank	1.01
Pine, southern	No. 1 joists & plank	0.97



SPECIES	GRADE	MIN L/h
Pine, southern	No. 1 dense joists & plank	0.94
Pine, southern longleaf	No. 1 longleaf joists & plank	0.94

* On graph indicates the beam span beyond which the deflection will exceed 1/360 of the span.

there's
money in modernizing
on
main street



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MASONITE
PRESWOOD

The butcher, the baker, the grocer, too...every merchant welcomes extra business. And a proved way of attracting more customers is through a modernizing program.

And, you can sell more remodeling jobs when you use Masonite Presdwood. This modern material enables you to achieve better results at lower cost. There are 33 types and thicknesses of this famous hardboard, and you can get just the one you want for practically any modernization problem.

We have just prepared a series of plans that show how eleven different types of stores can be made attractively modern with Presdwood®.

May we send you this set at no obligation? It will be helpful in talking to your prospects. Just send the coupon.

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"Masonite" signifies that Masonite Corporation is the source of the product

I'm interested. Please send me your set of eleven folders on Commercial Modernization.

Name.....

Firm.....

Address.....

Town.....Zone.....

County.....State.....



Sizes for any
double-hung or
louvre window

TENSION-tite aluminum
screens fit all wood double-
hung or louver windows.

Built-in
template

Assures fast, mistake-proof
installation. Screen is cor-
rectly centered at all times.

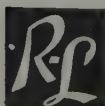
Put up with only
5 screws

The five screws (six on
screens wider than 3'-0") are
inserted in seconds. No
loose hardware—no lefts or
rights.

All
Aluminum



See Sweet's Light Construction File 5b/Ru for additional data or write



RUDIGER-LANG CO.

2701 Eighth St., Berkeley 10, Calif. • Suite 310, International Trade Mart,
New Orleans, La. • Distributed in Southern California by TENSION-tite
Window Screen Co., 8473 Beverly Boulevard, Los Angeles 48, California

*TENSION-tite screens are superior
in many ways...for example:

FEATURES	TENSION- tite	SCREEN A	SCREEN B	SCREEN C
ADJUSTABLE TENSION Tension does not depend on springs.	YES		YES	
SELF-CENTERING Screen cannot slide to right or left when opened.	YES		YES	
NON-BOWING BOTTOM BAR Center clip provided on all wide screens.	YES			
PRE-ATTACHED HARDWARE Nothing to lose. No lefts or rights to install.	YES		YES	YES
NO LEVERS Children play with tension levers; fre- quently snap them off.	YES			
FASTENS TO SILL No danger of split- ting vertical blind- stops.	YES			
CAN BE PUT UP FROM OUTSIDE If upper sash is stuck or nailed.	YES			

NEW PRODUCTS



Courtesy LIVING For Young Homemakers

HARDWOOD VENEER, bonded to fabric, can be pasted up like wall-
paper to give paneled-wall appearance without carpentry

Spraying wood onto walls would appear to be the only possible
refinement not achieved by US Plywood's new *Randomwood*, which
has hardwood veneer only 1/85" thick bonded to a backing of
cotton fabric. This completely flexible product (it can be wrapped
around a finger) may be applied to any flat, curved or angled
surface (dry and smooth) with wallpaper paste. Professional
application is recommended.



Like its predecessor, *Flexwood*, the new wall covering comes in
various woods (red gum, walnut, mahogany, mountain tulip, oak,
red birch, tigerwood and primavera). All sheets are 15" wide, 8'
and 10' long. Unlike *Flexwood* which offered a matched-grain
effect, *Randomwood* takes the grainings and markings as they
occur in the trees, with no effort made to match them. Any finish
recommended for wood paneling may be applied.

Installed cost of the material will be approximately 80¢ per
sq. ft., with the usual local variance.

Manufacturer: US Plywood Corp., Weldwood Bldg., 55 W. 44th
St., New York 36, N.Y.

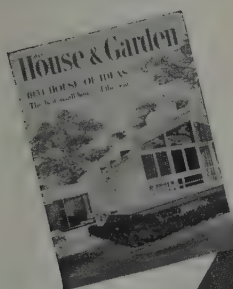
Other new products



An aluminum and glass-fiber flexible ducting . . . p. 178, a furnace-
clothes drier combination . . . p. 174, and a built-in radio . . . p. 182.

continued on p. 166

Look for this
AMWELD®
 advertisement
 in the
JULY ISSUE of
House & Garden



SELECTED FOR HOUSE & GARDEN'S
1954 HOUSE OF IDEAS



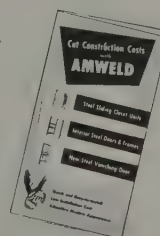
AMWELD®
selected again!

For the second year in a row, Amweld Building Products have been chosen. The reason — *beauty that lasts!*

Made of steel, Amweld Interior Flush Doors, Frames, and Sliding Closet Units will never warp, shrink, or split — and they actually save many construction dollars!

Have your contractor see the local Amweld dealer today.

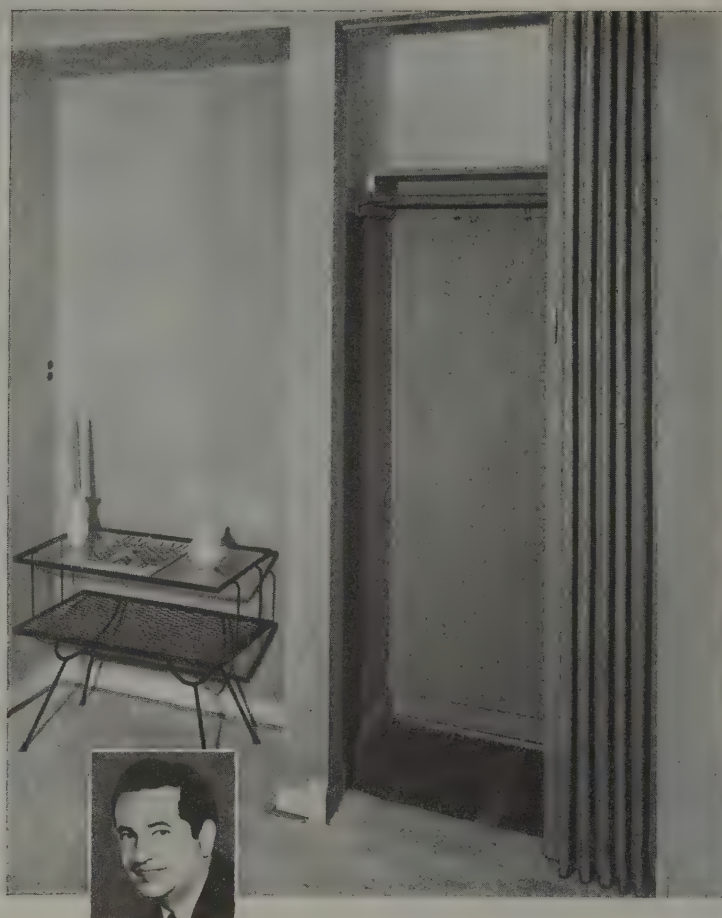
*Write to us for Amweld
 Cut Construction Costs folder.*



AMWELD®
 building products division

THE AMERICAN WELDING & MANUFACTURING CO.

330 DIETZ ROAD • WARREN, OHIO



for low-cost "studio homes" ...cost-cutting **SPACEMASTER**

...SAYS BUILDER FRED GARLING

To the public, these Spacemaster closet doors are one of the attractive features that help them decide on Garling Construction Company's low-cost "Studio Homes." To builder Fred C. Garling, Jr. of Dearborn, Michigan, they're also one of the cost-cutting features that make a low selling price possible. Says Mr. Garling, "With its low initial cost and ease of installation, Spacemaster actually cuts our 'per opening' cost."

Spacemaster sells at the lowest price in quality folding door history. There's no need to trim and case the opening, no need to paint the door. Spacemaster goes up with eight screws in eleven minutes. See your building supply dealer or mail coupon for full information.

New Castle Products, Inc., New Castle, Indiana; Montreal 6, Canada

SPACEMASTER

New Castle Products, Inc.
P.O. Box 973, New Castle, Indiana
Gentlemen: Give me full information on Spacemaster doors.

Name.....

Company.....

Address.....

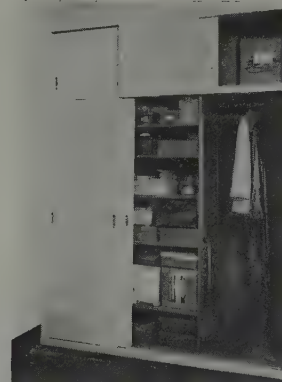
City.....County.....State.....

folding doors
by



COP. 1954 NEW CASTLE
PRODUCTS, INC.

NEW PRODUCTS *continued*



STORAGE UNITS and built-in furniture save space, add convenience

Adequate storage space is one of the most powerful sales arguments that any builder can use, and *Unit Wall* prefabricated storage walls and built-ins are offered in various combinations in a variety of woods and finishes.

Six different models (wardrobe, desk, dresser, vanity, chiffonier and linen closet) are offered in seven different widths (3' to 6' in 6" steps). All units are 26" deep and 8' high to eliminate any furring down from the ceiling, and to take advantage of overhead



storage space. Framing of the units is of white pine and fir, with gum plywood as the basic finishing material, though other woods are available at a premium.

Specialized accessories are available for clothing and shoe storage, laundry hamper, special shelf arrangements, etc., and the factory designs accessories for special problems.

Planning of the units is shown by the wardrobe and a special "man's closet." The wardrobe is divided into two separate compartments: the larger extends 6' high from the floor and accommodates items in frequent use; the space above has its own set of sliding doors, and is designed for bulk storage of little-used things. For the man of the house, *Unit Wall* splits the storage space into a lower compartment designed to trouser length, and an upper space for shirts and jackets, thus obtaining 8' of hanging rod in a 4' width.

Prices are based on gum panels, knocked down, sanded for paint. Some typical prices: 3' wardrobe, \$84; 6', \$104; 4' dresser, vanity, etc., \$149.50. For the lower-priced house field, *Unit Wall* is bringing out closet sections to retail for \$65 to \$80, in 4', 5', 6' widths.

Manufacturer: Unit Wall Co., P.O. Box 266, Buena Vista Station, Miami, Fla.

continued on p. 170



Miller Nichols,
President J. C. Nichols Company

IN KANSAS CITY'S FAMED COUNTRY CLUB DISTRICT...



FASCO

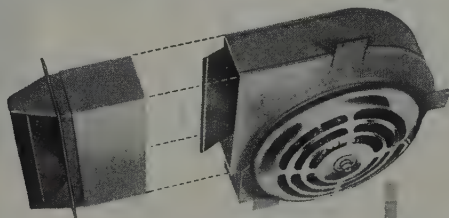
VENTILATING FANS ADD A "POTENT SALES APPEAL"!

"The J. C. Nichols Company is pleased to endorse the use of Fasco Ventilating Fans. They are used in many houses which the company builds throughout the Country Club District. It adds one more potent sales appeal for the salesman to use when presenting our company's homes to the discriminating buying public. In an area like the Country Club District we are extremely particular about the kind of products which go into our homes. We are pleased when we add the name 'Fasco' to our list of quality products."

Miller Nichols

Country Club District of Kansas City, Missouri, developed by the J. C. Nichols Company, is often called "America's Finest Residential Area". The development has grown to include more than 6000 acres. The homes range from the moderately priced two bedroom ranch home to the costly estates, many of which sell for more than \$150,000.

FASCO VENTILATING FANS are in use everywhere throughout the area. Over sixty-five builders, in addition to the Nichols Company, are currently building in the Country Club District. Once again Fasco proves it is America's most popular ventilating fan!



MODEL 1021 "CEIL-N-WALL" DELUXE
FOR LARGE AND MEDIUM SIZED KITCHENS

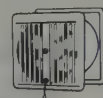
THIS FASCO Kitchen Ventilating Fan is adaptable for a wide range of installations—inside wall above stove—thru cabinets—in ceiling. Housing 3 1/4" thick. Engineered for most difficult type of exhausting—by pressure thru ducts. New Fasco Turbo-Radial Impeller develops pressures unobtainable by ordinary fan blades. 10" Impeller, 530 C.F.M.

FASCO

INDUSTRIES, INC.

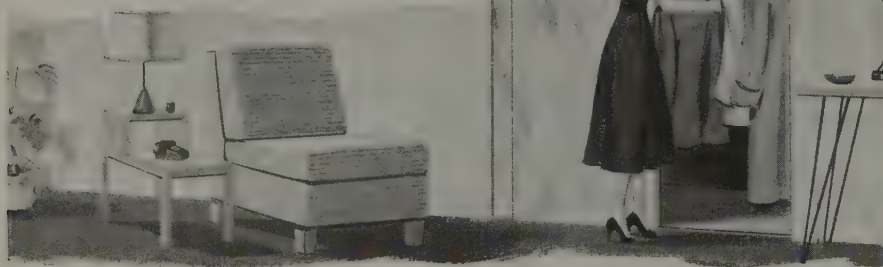
57 AUGUSTA STREET • ROCHESTER 2, NEW YORK

SPECIFY FASCO FOR EVERY VENTILATING FAN INSTALLATION

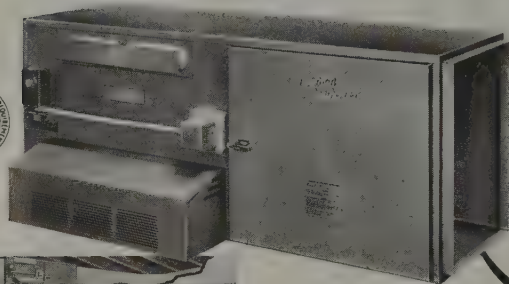


MANUFACTURERS OF THE ONE COMPLETE LINE OF VENTILATING FANS

*extra closet space puts
more value in your homes*



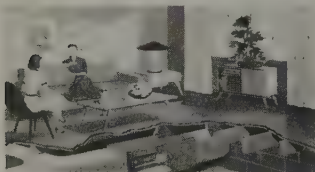
*"Hidden Comfort" of the
Norman Southerner
gives more space for living*



*the original
compact
horizontal
forced-air
gas furnace*



COMPACT DESIGN of Norman Southerner gives "hidden comfort" in attic installation. Approved by AGA. Also functions perfectly in new homes designed for perimeter heating.



ONE-FLOOR PLAN of today's modern home has more closet space with Norman Southerner installed in a crawl space. Adaptable in field as either right or left-hand unit.



MAKES AN ATTRACTIVE BASEMENT with the Norman Southerner suspended out of the way. Leaves more valuable floor space for work or play in homes and apartments.

THAT CLOSET or utility room floor space you've been using for heating equipment is costing you money. Let the home owner use that valuable floor space while you install "hidden comfort" with the Norman Southerner... in the attic, basement, under the floor, stairs or crawl space using a minimum of duct work.

MOST COMPACT of all horizontal gas furnaces, the Norman Southerner lets you use more valuable floor space for closets and utility areas in the homes you build.

If you're building with an eye to cutting costs and saving space you'll find the Norman Southerner the most versatile forced-air gas furnace ever built. Time-tested and performance-proved in thousands of installations. Makes your homes worth more for the money, too... with all the latest improvements in design for greater heating efficiency. Sizes for all heating requirements. AGA approved for all gases.

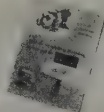
Manufacturers of a Complete Line of Gas Heating and Air Conditioning Equipment.

Norman® products company

1150 Chesapeake Ave., Columbus 12, Ohio



SEND FOR ILLUSTRATED LITERATURE complete with specifications of Norman Southerner for your files. Shows customers the big advantages of homes you build with the Norman Southerner.



NEW PRODUCTS *continued*



FOLDING STAIRCASE jackknives into place without tugging or banging

The principle of the hydraulic safety check is used in the *Precision Folding Stairway* to prevent slamming either on opening or closing, and the stairway has marked graduations on the runners so that it can be lopped off to fit any ceiling height from 7'-0" to 8'-9".

Counterweights pull the unit snugly flush with the ceiling, and the door panel is insulated to keep heat loss to the attic at a minimum. Each step has a composition safety tread, and all hardware is secured with screws and bolts.

Price: \$55 with hydraulic check, \$43 without.

Manufacturer: Precision Parts Corp., 400 N. First St., Nashville 7, Tenn.



SELF-LEVELING STEPLADDER adjusts to uneven surfaces

Irregular footings are taken in stride by the *Bendick* self-leveling ladder, which automatically compensates for uneven surfaces through an adjustable hinging. The weight of the user is enough to snap the hinge into a firm angle, though varying footings would ordinarily make ladder use unsafe.

The ladders are available in a complete range of standard sizes, from 5' to 8'.

Retail prices run from \$7.50 for the 5' model to \$12 for 8'.

Manufacturer: Richbilt Mfg. Co., 3277 Spring Grove Ave., Cincinnati 25, Ohio.

continued on p. 174

The + plus that counts when you're selling a house!



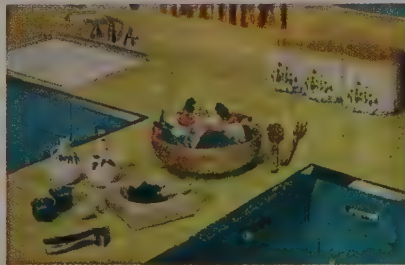
Gold Seal VinylTile in Bermuda Hues

A prospective house buyer keeps an eye out for something extra. If you want to add hundreds of dollars to the value of a house . . . use Gold Seal VinylTile in Bermuda Hues. It's a unique, sun-drenched flooring that sparkles with light and represents the luxury a house buyer looks for. All 11 Bermuda Hues are color-coordinated so you can create decorator-showpiece effects. And that's just half the story. Gold Seal VinylTile is tough . . . flexible

. . . and extremely comfortable underfoot. It resists kitchen acids, alkalis — even dirt. A flooring with that many *talking points* can help sell a house. Use resilient, easily installed Gold Seal VinylTile for your next project . . . remember — *it's been proved successful over on-grade concrete underfloors — even over radiant heat!* Remember, too, you and your customers are protected with the Gold Seal Guarantee of satisfaction or your money back.



Bermuda Hues — the only vinyl colors as right for walls as for floors. Once up they should last as long as the house.



Matching countertops are seamless . . . have no dirt-catching corners . . . cost only a fraction of what hard, clattery tops cost to install.

GOLD SEAL® FLOORS AND WALLS

CONGOLEUM-NAIRN INC.

Kearny, N. J.

©1954



For full information on "Bermuda Hues" mail this coupon:

HH-7

Congoleum-Nairn Inc.
Builders' Service Dept., Kearny, New Jersey

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

**For
Perimeter
Heating**

Fibre DUCT

means **FASTER**
installation
at lower cost!

And here are the advantages of

SONOAIRDUCT®

PAT. APP. FOR

FIBRE DUCT

Long length SONOAIRDUCT is a lightweight supply or return duct specifically developed to save you time and money in installation of gas and oil fired loop, radial and lateral slab heating systems. SONOAIRDUCT is aluminum foil lined for lower coefficient of air friction; wrapped in black weather-resistant asphalt duplex kraft, and end-dipped in wax to make it more impervious to moisture. It is easy-to-handle and easy-to-level. Fits standard metal fixtures.

Available in 27 Sizes—
2" to 36", up to 50' long.

Can be sawed to exact lengths on job.

SONOAIRDUCT has been used and approved by heating contractors and home builders everywhere — and has been used in such notable housing projects as Park Forest, Illinois; Anchor Homes, Inc., Alaska; and Fairless Hills, Pa.

SEE OUR CATALOG IN SWEETS

Write for Complete Information and Prices—



SONOCO PRODUCTS COMPANY

Construction Products Division

LOS ANGELES, CAL.
2801 SOUTH WESTERN AVE.
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HARTSVILLE, S. C. — MAIN PLANT
BRANTFORD, ONT.

MONTECLAIR, N. J.
18 SOUTH PARK STREET
AKRON, IND.



NEW PRODUCTS *continued*



FURNACE CLOTHES DRIER loads clothes at arm level, uses cast-iron heat exchanger

Two appliances with heavy heat demands are combined in the new Herbster *Heat-N-Dry*, which mounts a clothes drier waist-high atop the gas-fired furnace. Filtered air is drawn into the furnace, warmed by passing over the venturi-like cast-iron heat exchanger, then blown through the tumbling clothes. Moist air and lint are vented to the outside either through a normal vent or through the house chimney.

Controls on the drier set the drying time and also determine the percentage of furnace



Handy height eliminates bending

heat that is sent to the drier or the heating ducts. In winter only 25% of the generated heat is funneled through the drier; in summer the entire output is used for drying. The manufacturer claims that a full load (19 lb. wet weight) will dry in 29 minutes, with the temperature controlled at 170° average.

Both loading and unloading are at a convenient height, and opening the windowed drier door to add items stops both heat and tumbling action. Another advantage in the small house is that the piggyback mounting requires no extra floor space.

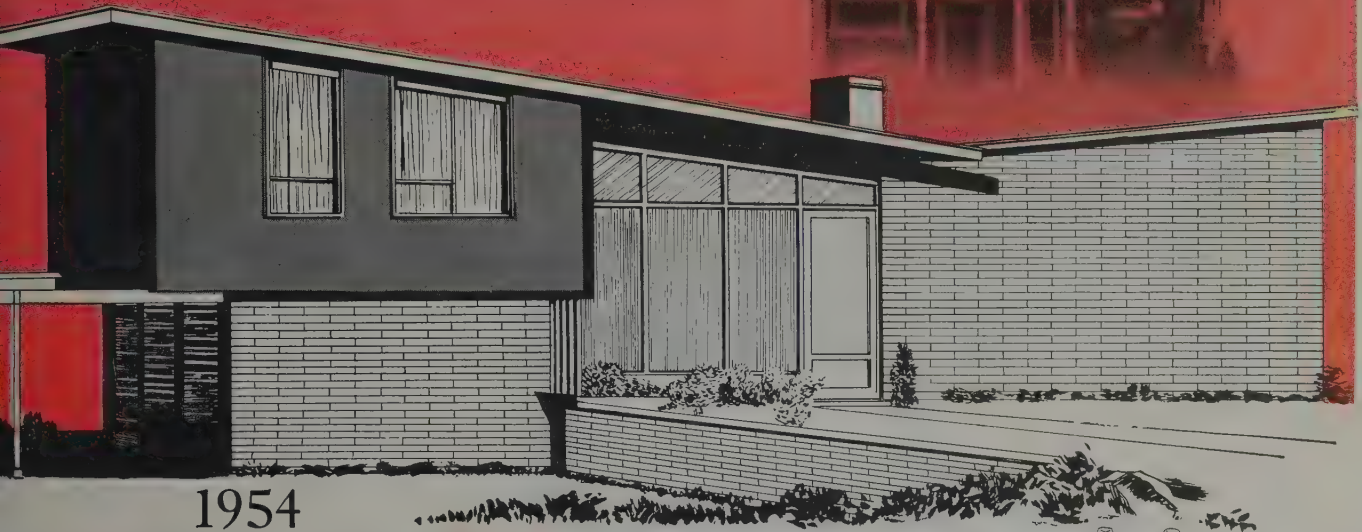
Retail prices: \$598 (100,000 Btu's) and \$638 (120,000 Btu's).

Manufacturer: Herbster Products Co., 877 Addison Rd., Cleveland, Ohio.

continued on p. 178

1890

*The modern material
for modern homes . . .*



Concrete Masonry



The evolution in housing design caught some builders with their plans down — on the drawing boards! And those builders are the ones whose houses attract buyer interest—and sell. Why? Because they take into consideration the desires of today's buyer.

Regardless of style — contemporary, ranch, or traditional — today's house is planned around buyer wants such as:

A long, low, large-house look: Standard 8" high concrete block, 4" high units, split-block, and other new sizes and styles give any home a modern, up-to-the-minute sales appeal. The wide variety of wall patterns, mortar joint treatments, and texture variations enables progressive builders to give

each project home an individuality that buyers desire and like.

More house for less money: Concrete masonry helps the builder by offering a choice of economical through-the-wall or cavity-wall construction—both at a saving over comparable construction with other permanent building materials. Attractive exposed-and-painted concrete block interior walls offer further saving.

Extra features for convenience and livability: A fireplace, a patio or terrace, garden walls that extend the house and make it appear larger, a garage or carport—all are eye-catching sales features that you can include in your homes at little added cost with concrete masonry.

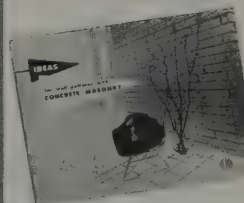
NATIONAL CONCRETE MASONRY ASSOCIATION
38 South Dearborn Street Chicago 3, Illinois



A FEW TYPICAL CONCRETE MASONRY STYLES



HELPFUL DESIGN AID . . .



Ideas for Wall Patterns with Concrete Masonry. Certificate of Merit Award Winner in 1954 Product Literature Competition sponsored by the Producers Council and American Institute of Architects. Get your copy from your local NCMA member.

Announcing the DWYER "400"



A buffet
kitchen
or bar...
in a smartly
styled piece
of furniture

Available in
rich mahogany
color or in
blonde moderne



A truly modern answer for those who require the practical convenience of close-by compact kitchen facilities . . . without the "kitchen look". No need for extensive remodeling. The Dwyer "400" graces a room as a piece of fine furniture... smartly styled to blend with either modern or traditional. Ideal for the home recreation room, den or porch.

An asset in the business office for customer hospitality or as a time-saving convenience for employees.

An added profit to motels and hotels as well as efficiency apartments.

Mail coupon for illustrated bulletin
and complete information

DWYER PRODUCTS CORP.

*Specialists in Compact Kitchens
for more than a quarter-century*

Dept. D74 • Michigan City, Indiana

Send for Illustrated Bulletin and Complete Information

Name _____

Address _____

Town _____ State _____

Dwyer Products Corporation, Dept. D74, Michigan City, Ind.

NEW PRODUCTS *continued*



FLEXIBLE DUCTING snakes around corners, is joined with brushed-on adhesive

A branch ducting for high- and low-pressure air-conditioning systems called *Thermoplex A* is being offered for residential systems after introduction in the commercial and industrial fields. Looking like a silver snake, the tubing consists of a continuous galvanized steel-wire helix, covered with a three-ply laminate of Fiberglas fabric between layers of aluminum sheeting.

Thermoplex A is available in 12' lengths in diameters of 12" to 10". Only installation tools required are: pocket knife, wire nippers, adhesive and a brush.

The ducting is light enough (less than 1 lb. per ft. in 6" diameter) to be carried up



Adhesive forms air-tight connections

a ladder by one man, cut and fitted on the spot. It fits over standard sheet-metal couplings, and the synthetic rubber base adhesive is claimed to provide a positive air-tight connection.

No special fittings are required, and no elbows or joints (which frequently leak) need be formed. *Thermoplex A* takes close bends with a radius equal to half its own diameter.

Material costs are high (4" duct, \$1.30 per lin. ft.; 6", \$1.86 per lin. ft.), but installation savings are claimed to be great enough to make the material competitive with ordinary galvanized ducts.

Manufacturer: Flexible Tubing Corp., Guilford, Conn.

continued on p. 182

with finer ALUMINUM WINDOWS than Ceco-Sterling...

Wide Selection—Pioneer Engineering—Exclusive Features— Quality Production Methods

With infinite care quality is guarded all the way in Ceco-Sterling Aluminum Windows. Ceco Window Experts bring you designs with exclusive features developed through years of research . . . Ceco controls quality from raw material to finished product these 5 ways:

- 1** We make our own extrusions . . . tolerances are controlled.
- 2** Exclusive aircraft-type welding assures the strongest projected and casement windows on the market.
- 3** Stainless steel weatherstripping in double-hung windows assures a superior weatherseal. Double-contact weathering provides a tight seal on projected and casement windows.

4 Interlocking mullions of double-hung types mean maximum rigidity. Installation is simplified.

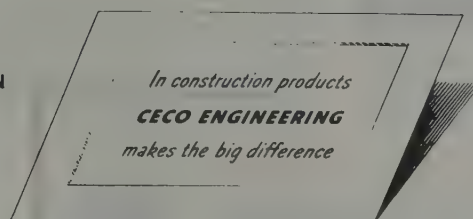
5 Quality hardware is standard with every window.

Ceco offers Aluminum Windows as companion products to its broad Steel Window line, forming the world's largest line-up of metal windows.

Now from one source you can choose the right window to fit your design needs. So call on Ceco for Aluminum or Steel Windows. Our Experts will help you plan the best installation of the window you select—will help you save, too. See Sweet's File for details and address — write Ceco general offices for illustrated literature.

CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities
General Offices: 5601 W. 26th Street, Chicago 50, Illinois





Adds *Visible Value* to any Home!

PLYALOY[®]

paint grade
overlaid plywood

SIDING

Pre-cut to 12", 16" and 24" widths; Packaged and Sold
"by the Square"... Complete with Wedges and Furring Strips

**Perfect for Long-Lasting
Check-Free Paint Jobs**



Smooth, tough fused resin-fiber surface is perfect base for good-looking finishes. The way Plyaloy keeps its appearance is a continuing credit to your reputation.

Yes—you can buy Plyaloy siding *packaged by the square*. It's easier to order, without complicated figuring...easier to apply, because it comes in standard siding widths...easier to handle, because it comes in protective packages. *Saves time and labor all along the line!*

Remember: Plyaloy siding has a superior paint surface. Gives maximum protection against grain-raise or checking.

For beauty that attracts buyers... durability that *keeps* them sold—specify Plyaloy pre-cut siding.

SPECIFICATION DATA: Plyaloy comes in pre-cut 8' lengths, 12", 16" or 24" wide; 5/16", 3/8" or 1/2" thick. Edges beveled for drip. Packaged for protection; wedges and shadow-line furring strips included. One side surfaced with fused resin-fiber overlay. Base panel is DFPA-inspected Exterior-type fir plywood (EXT-DFPA). Other sizes available. For complete information write St. Paul & Tacoma Lumber Co., Dept. HH, Tacoma, Washington.



ANOTHER MEMBER OF THE FAMOUS TREE LIFE FOREST PRODUCTS FAMILY

NEW PRODUCTS *continued*



MOBILE DISHWASHER, with a maple chopping-block top

Primarily intended for the rental-property occupant, Hotpoint's newest version of a mobile dishwasher boasts a laminated maple top, and so can double as a food preparation center.

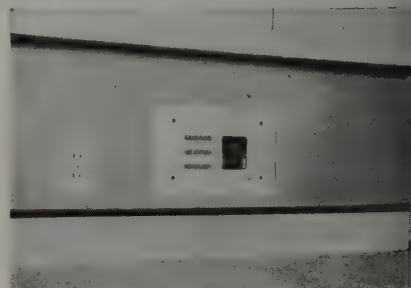
If permanent installation is desired later, the casters can be removed and permanent plumbing installation made. For a builder intending to make a dishwasher optional equipment, this movable unit could be used as a demonstrator in the model home, with permanent units (exactly same features and capacity) installed where desired.

Price: \$360.

Manufacturer: Hotpoint Co., 5600 W. Taylor St., Chicago 44, Ill.

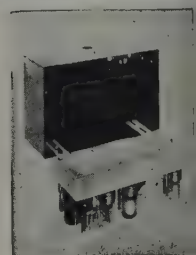
BUILT-IN RADIOS add sales appeal to kitchens and playrooms

Television hasn't killed off radio by any means, and one of the older medium's strongest assets is as entertainment when women are in the kitchen, out of eye-shot of the TV set. *Flush Wall* radios enable builders to use radio listening habits as a sales feature by offering a unit that can be built into the kitchen wall. NAHB ex-president Robert P. Gerholz offers



Kitchen work space is convenient location for radio installation.

Hinged cabinet permits entire chassis to be lifted out for repairs.



continued on p. 184

purchasing power . . . plus



...more families earn high incomes
...more families enjoy good living
...more families invest in new homes

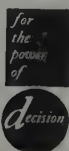
It's today's tempo, cross-country. Incomes and families are big...home building continues to boom. An important part of this pace-setting new market is made up of House & Garden home builders...families who have *purchasing power plus power of decision*. They know, want and can specify quality building materials. Recent research* shows that:

- 3 in every 10 H&G homes were built within the past 5 years
- H&G families invested in new homes at *more than twice* the rate of U.S. families
- H&G families equip their homes with the newest and best materials and equipment
- H&G families are the *dominant* factor in *specifying* materials and equipment

THE BIG PLUS:

these new H&G homes *cost* on the average *three times as much* as the average new U.S. home

Proved fact! H&G home builders are the *most valuable customers* for your building products. Tell and sell this nation-wide responsive audience effectively and economically in House & Garden.



House & Garden

*Complete details about H&G home builders available on request.

Write to: House & Garden, A Condé Nast Publication, 420 Lexington Avenue, New York 17.

Third in a series:
watch for additional
advertisements in
forthcoming issues
of House & Home

THERMADOR

Bilt-in electric ranges

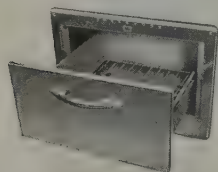


...give your moderately-priced houses that custom-built look of gracious living

ARCHITECT: RICHARD J. NEUTRA



Compact 29 1/4" four surface top (SU4D) leaves more counter space
...Thermostatically controlled warming drawer



YOUR HOUSES can reflect even greater distinction with the stainless steel Thermador units. The budget-conscious family will be especially proud of the added beauty and convenience in their new home—made possible with Thermador.

Choose from a complete selection of Bilt-in units: cooking tops in lengths from 13 1/2" to 44" (with deep well cooker or middle griddle), warming drawers, and work-level ovens.



THERMADOR

—the original Bilt-in electric range

Thermador Electrical Manufacturing Company
5119 District Boulevard, Los Angeles 22, California HH-754

Please send me literature on:

- | | |
|---|--|
| ☐ Bilt-in Ranges | ☐ Bathroom Heaters |
| ☐ Console Ranges | ☐ Water Heaters |
| ☐ Wall Fan Heaters | ☐ Evaporative Coolers |

Name _____

Address _____

City _____ Zone _____ State _____

NEW PRODUCTS *continued*

this radio as standard equipment in his Flint, Mich. houses as an extra, easily merchandised by salesmen.

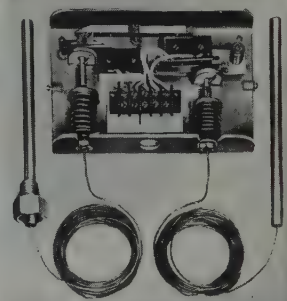
UL approves *Flush-Wall* for built-in installation. The entire unit is hinged for easy repair. Front panels are either Masonite which can be painted, or plastic available in three colors.

Price: \$34.95. Masonite panels, \$2.45; plastic, \$4.45.

Manufacturer: Flush-Wall Radio Co., 1012 Cleveland St., Clearwater, Fla.

OUTDOOR CONTROLS foresee heating demand, keep heat flow in step with weather

The "start-stop" action of many heating systems causes discomfort whenever wide variations in outdoor temperatures occur, for the heat output doesn't start until the house temperature hits a low point, and often overshoots the shut-off mark. New *Weather-Flo* outdoor controls constantly change the temperature of the water (or air) being circu-



lated, with every change of outside temperatures (even less than 1°).

The regulator is a dual control, with one thermostatic bulb outside, and another in the boiler or piping system. The first measures the changing outdoor temperatures, and starts or stops the heating system accordingly. The second bulb keeps the temperature of the circulating water and air constant. The controls insure that heat is put into the building as it is lost, without waiting until the air is "cold" to start, or "warm" to stop.

The outdoor control may be placed wherever it will not be affected by the sun or by heat flow from the building. The control case, with its flexible settings, may be anywhere convenient in the house. The system bulb is installed in the furnace bonnet or in the boiler of a hot-water system.

Variations of the controls are possible to provide zoning of different rooms or areas, and a time switch makes it possible to reduce nocturnal temperatures.

Retail price: \$72. Installation will vary between \$7 and \$25.

Manufacturer: Automatic Devices Co., Inc., 714 Hillgrove Ave., Western Springs, Ill.

continued on p. 190



Water Heaters



Wall Fan Heaters



Bathroom Heaters



Evaporative Coolers

Weldbord®

THE GENUINE **HARDWOOD** PLYWOOD
THAT SELLS FOR ABOUT THE SAME PRICE
AS ORDINARY SOFTWOOD PLYWOOD

THINK OF THE SALES APPEAL! Now you can wood-panel walls with *genuine hardwood plywood*, install partitions, fabricate kitchen cabinet and closet doors, finish off cellars and attics—at amazingly low cost!

Volume mill production by United States Plywood, world's largest and best known plywood organization, makes this tremendous saving possible. Weldbord is the biggest bargain in plywood history!

Weldbord utilizes fine hardwood veneers, with the grain running the width of the panel. The savings from this type of construction are passed on to you. The 1/4" Weldbord panels have the superior woodworking qualities of choice hardwoods. Weldbord is easier to fabricate—results in cleaner, better looking job.

Since Weldbord has no knots, plugs or patches, it is easy to paint or stain in a variety of perfect finishes. There's never any danger of annoying grain raise.

See the Weldbord panels at your lumber dealer's today, or at any of the 73 United States Plywood or U.S.-Mengel Plywoods distributing units in principal cities, or mail coupon.

**TAKES PAINT OR STAINS
EASILY, PERFECTLY
WITHOUT GRAIN RAISE**

Available 1/4"
thick in popular
panel sizes

8' x 4'
7' x 4'
6' x 4'



Weldwood®

United States Plywood Corporation

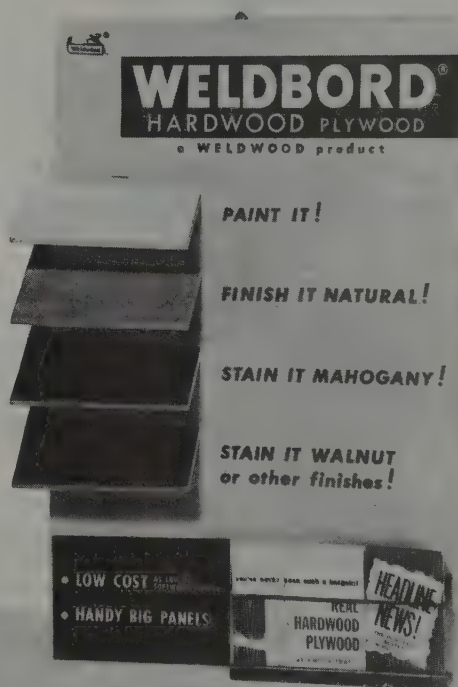
World's Largest Plywood Organization

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U.S.-Mengel Plywoods, Inc., Louisville, Ky.

73 Distributing Units in Principal Cities

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HH-7-54

FREE: ☐ Please send me free sample of Weldbord.

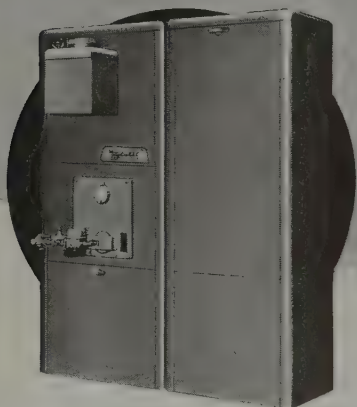
NAME

ADDRESS

CITY.....STATE.....

Majestic

Air Conditioners

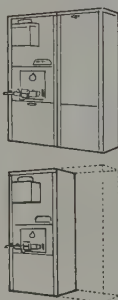


A modern home feature that makes a real sales point!
COMPLETE AIR CONDITIONING

at low
cost now . . .

OR

heating now,
cooling later . . .



Year-around air conditioning helps sell homes faster! With Majestic's compact *twin units*, as small as 22" square at the base, you can offer this modern feature in even the smallest homes. Or, at a low initial cost, you can offer homes designed for "heating now, cooling later" with a minimum expense for extra ductwork. Twin units are available in both upflow and counterflow models. Get full details from your dealer on Majestic's complete line of gas or oil furnaces—from 76,000 to 400,000 BTU capacity—and matching refrigeration units. AGA approved and UL listed equipment!

See your dealer
or write

The **Majestic Co., Inc.**
416 Erie Street
Huntington Indiana



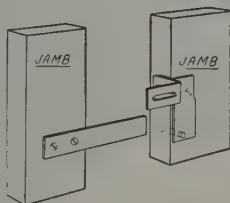
NEW PRODUCTS *continued*

PREHUNG DOOR UNITS include jambs, trim, stops and hardware

Assembly-line techniques will be encouraged by two new prepackaged interior door units, which make assembly a mere hammer-and-level operation. The *Jackstite* package includes a birch flush door, "complete with all the trimmings." It comes packed in a cardboard carton. The two halves of the assembly adjust to fit any rough door opening. Casings are machine mitered and splined at the fac-



Hammer and level only tools needed.



tory for precision fit, and steel angle brackets anchor the unit to the studs.

Local millwork jobbers and manufacturers are being licensed to assemble and distribute the *Jackstite* door, with necessary hardware being provided by the originators.

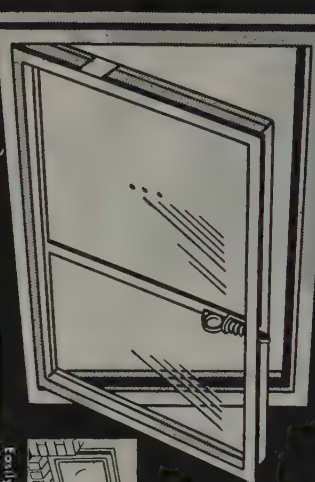
A two-man, five-minute installation is promised by the manufacturers of the *Dor-Pak* assembly, which offers a choice of birch or Masonite-faced doors, hung in a welded two-piece steel frame, complete with all hardware.

Both door and frame are finished in a satin-finish, off-white enamel and the doors are also

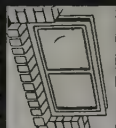


continued on p. 194

the Quality of NEW MONARCH IN-A-SLIDE all-steel BASEMENT WINDOWS is in their Superior Design and Construction



Easily Installed—
Stands by Itself



Each Easily and
Quickly Removed



When you think of Basement Windows... think of
NEW MONARCH MACHINE & STAMPING COMPANY
100 S. W. NINTH STREET
DES MOINES, IOWA

See your dealer today. Ask for All-Steel In-A-Slides.

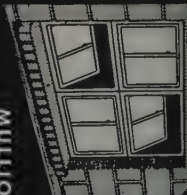
- Yes, it's their matchless construction and design that make In-A-Slides supreme—and this supremacy is the reason for the ever increasing demand among builders everywhere for these peerless windows.
- In-A-Slides are of better design and stronger construction. Outstanding in quality.
- In-A-Slides are double weather-protected.
- In-A-Slides' quickly removable sash are interchangeable.
- In-A-Slides afford deflected ventilation.
- In-A-Slides are easier to handle and easier to install.
- In-A-Slide windows, screens and storm sash are phosphate coated and will resist rust.
- In-A-Slides' popularity is soaring to a new height throughout the home building field.

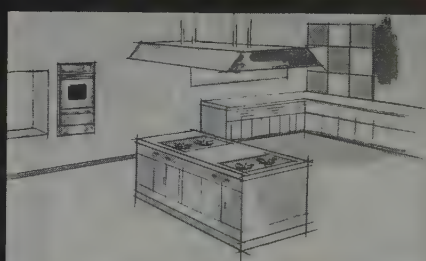
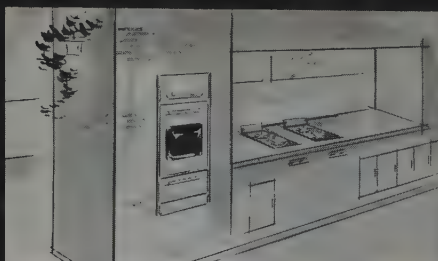


SCREENS AND
STORM SASH
TO MATCH

MULLIONS

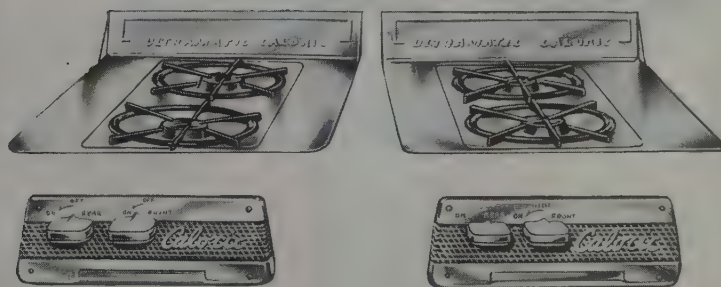
used with standard In-A-Slides make sturdy multiple window units of up to 6 windows each





house—six kitchens

.....



Send this coupon to Dept. HH,
Caloric Stove Corporation, Tipton, Pa.,
for complete information.

Please send me descriptive literature on Caloric built-in
gas cooking equipment.

NAME

.....

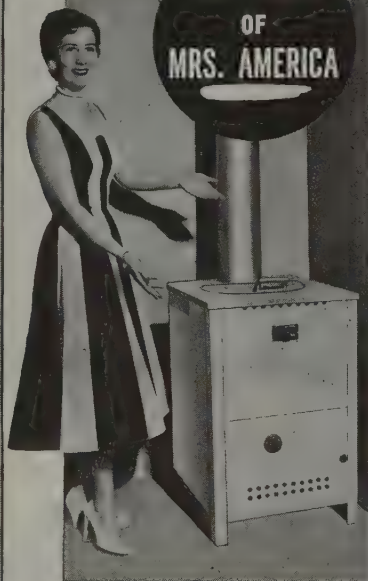
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HERE'S A NEW COMPACT INDOOR INCINERATOR

Inciner
TRADE MARK
REG. U. S. PAT. OFF.

FIRST CHOICE
OF
MRS. AMERICA



Now, more than ever,
Inciner leads the way in
automatic, gas-fired
incineration.

For more than thirty
years Incinors have
given dependable,
trouble-free service in
thousands of homes.

Install Inciner to elimi-
nate messy trash and
garbage areas—raise
appraisals.



Approved
by A.G.A.

OUTDOOR INCINOR
MODELS ALSO
AVAILABLE . . .

WRITE TODAY FOR
DETAILS

INCINERATION DIVISION
BOWSER, INC. • CAIRO, ILLINOIS

NEW PRODUCTS *continued*

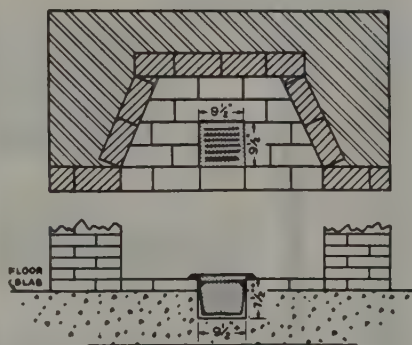


available in natural birch. *Dor-Paks* can be installed after decorating and floor finishing, thus avoiding the necessity for painters to cut carefully around door openings. Both *Jackstite* and *Dor-Pak* adjust to all wall thicknesses, from the minimum 3" to a full 5½".

Retail prices: *Jackstite*, \$28; *Dor-Pak*, \$24.40 to \$42.97, depending on door facing, size and quantity ordered.

Manufacturers: (*Jackstite*) Young Wood Products Co., 45240 Grand River, P.O. Box 166, Novi, Mich.

(*Dor-Pak*) Lott Mfg. Co., 1914 Washington St., Jamestown, N.Y.



ASH RECEPTACLE for fireplaces in slab houses lifts out for emptying

Unsightly piles of ashes after the roaring log fire are the fireplace equivalent of the hang-over after the overindulgent evening. Bennett-Ireland's new *Sweepit* cures this problem, especially troublesome in the basementless house, by providing a sunken receptacle in the hearth where ashes may be swept out of sight, to be disposed of later. The 9½" x 9½" galvanized pan is 7" deep, and lifts out when filled for easy dumping without the flying dust caused by shoveling.

The unit is sized to firebrick module, or a wood form can be used to provide a recess in a poured concrete foundation.

Price: \$5.75

Manufacturer: Bennett-Ireland Inc., Norwich, N.Y.

Technical Publications, p. 200

Majestic

A NATURAL
FOR SPECIAL
PROMOTIONS

HELPS SELL
YOUR HOMES

GIVES
EFFICIENT
SERVICE

EASY TO
INSTALL

APPROVED



It's
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Fired!

**Majestic
INCINERATOR**
Burnable trash & garbage disposal

Add that extra touch of "completeness" to your homes with this Majestic Gas-Fired Incinerator—the modern appliance for household trash and garbage disposal. You'll add sales value far beyond the modest cost . . . it's a home convenience everybody wants! Drying pilot and 18,000 BTU gas burner, coupled with Majestic's patented Jet-Air action downdraft, assure efficient operation. AGA approved.

Another Majestic Profitline Product
SEE YOUR DEALER OR WRITE

The Majestic Co., Inc.

413-A Erie St.

Huntington

Indiana

on Your Future

Coleman Blend-Air® is 5 years and 150,000 homes old!
NOW year-round air conditioning with exclusive features!

New improvements! Low prices!

A new standard in cooling and heating!

GREATER FLEXIBILITY TO FIT ANY SPECIFICATIONS

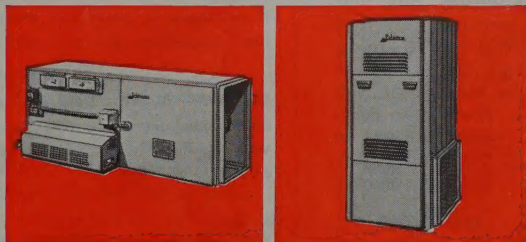
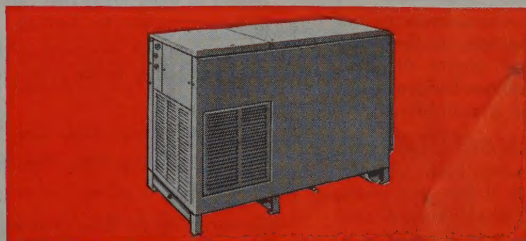
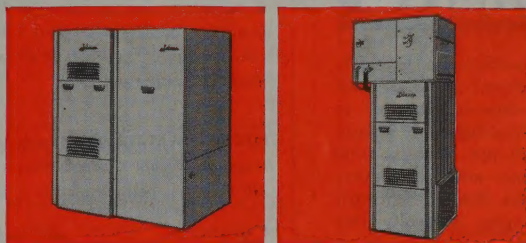
Now 14 year-round heating-cooling systems! For residential and commercial application, cooling capacities from 2 to 5 tons. 3 new self-contained units, including the most compact 5-ton unit on the market. Give twice as much positive humidity removal as ordinary systems. Quieter in operation because condensing unit may be installed in remote location.

Now 3 models Water Misers (compressor-condenser)! Two, 3 and 5 ton capacities. They install anywhere—in garage, for instance. Coleman Water Misers cut cooling water costs 97%, electricity 25%, eliminate cooling tower problems. Water Misers operate more economically, with less noise, and are more accessible for service.

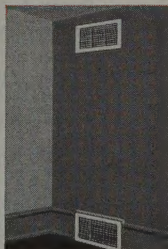
Three new horizontal furnaces! A total of 18 furnace models now in the Coleman line. Horizontals are designed for space-saving applications, and are rated at 85,000, 100,000 and 140,000 BTU input. Greater flexibility of manifold and control locations for ease of installation. All Coleman furnaces have long-life burners and combustion chambers.

New Blenders! Ceiling Blenders direct air flow to outside walls and windows for better perimeter cooling and heating. Ideal for kitchens, bathrooms, etc., or to supplement outlets in large rooms. Install with minimum cutting, eliminate re-decorating expense in old homes. They install quickly, easily. Adjustable Concealed Blenders fit neatly in standard walls, behind studs. Cabinet Blenders are ideal for installations in existing homes.

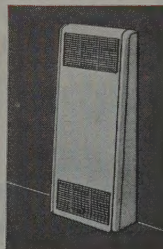
OIL GAS LP-GAS



CEILING BLENDER



CONCEALED BLENDER



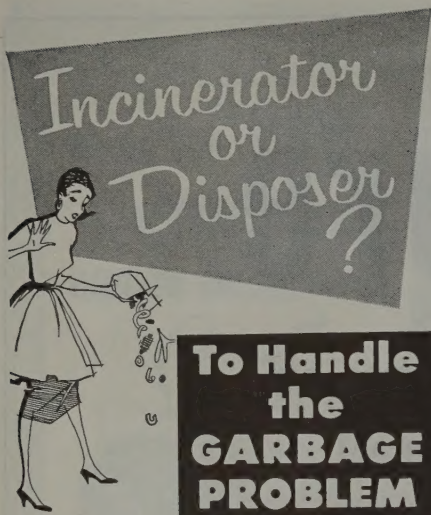
CABINET BLENDER

Comfort Costs So Little
with

Coleman®

Blend-Air®

America's Leader in Home Heating and Air Conditioning



Actually, the choice shouldn't be too difficult. The most unpleasant part of the "garbage problem" to the housewife, is the messy business of scraping food scraps and food wastes out of the kitchen sink and wrapping the sloppy mess in newspaper. Whether she totes the stuff to an incinerator or garbage can is really immaterial.

The only real and complete answer to the housewife's garbage problem is the food waste disposer. The food waste disposer handles the garbage problem before it becomes either garbage or a problem.

The NATIONAL 535 DISPOSER handles all kitchen food wastes—washes them quickly, safely, quietly down the drain. No muss, no fuss, no bother. NATIONAL'S new Micro-sizing grinding elements grind, shred and micro-size bones, fibrous wastes, pits, and pods, to uniform tiny particles . . . and whirls them away scouring and cleaning drain and trap as they go. On city sewer or country septic tank, the NATIONAL 535 proves the complete answer to the family garbage problem.



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**THE FREE
ARCHITECT'S
PORTFOLIO**

**NATIONAL
DISPOSER**

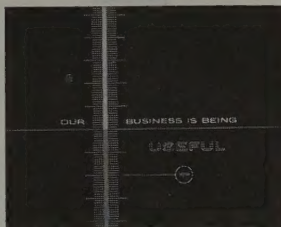
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TECHNICAL PUBLICATIONS



APPLIANCES. Our Business Is Being Useful. Frigidaire Div., General Motors Corp., Dept. HH, Dayton 1, Ohio. 20 pp. 8½" x 11"

A roundup of Frigidaire products devoted to conditioning air, water and food. A handsome cover wraps it, and clever drawings add to the general appearance.

ELECTRIC HEATING. Design for Modern Electric Heating. Wesix Electric Heater Co., Dept. HH, 390 First St., San Francisco 5, Calif. 32 pp.

Construction details and design data for houses in those areas that can take advantage of electric power for heating. Insulation and fenestration are discussed and a glossary of electric heating terms is included.

FLOORING. Which Floor Goes Where. Congoleum-Nairn, Inc., Dept. HH, Kearny, N.J. 20 pp. 3" x 6"

Ground rules for floor coverings for above- or below-grade installations. Instructions on preparation of floors and walls before applying Congoleum tiles and sheet goods.

CONCRETE BLOCK. Concrete Masonry Handbook. Buehner Block Co., Dept. HH, 2800 S. West Temple, Salt Lake City 6, Utah. 52 pp. 4" x 8½"

WATERPROOFING. Daracone Water Repellent. Dewey & Almy Chemical Co., Dept. HH, Cambridge 40, Mass. 8 pp. 8½" x 11"

Theory, applications and benefits of special silicone resin water-repellent compounds for above-grade masonry in both new and existing buildings.

CHIMNEYS. Brick-Panel Chimney Housing. Van-Packer Corp., Dept. HH, 209 S. LaSalle St., Chicago 4, Ill. 4 pp. 8½" x 11"

Installation details on Van-Packer's new chimney housing of asbestos panels scored and painted to look like brick.

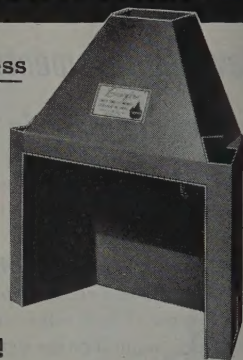
PUMPS. Sewage and Sump Pumps. Bul. 325 A-2. American-Marsh Pumps, Inc., Dept. HH, Battle Creek, Mich.

continued on p. 205

Cut your Fireplace Construction Costs with this...

Benefire® FIREPLACE FORM

It costs less
to build
with
Benefire
than to
lay up a
Common
Brick
Fireplace!



SAVES LABOR.. MATERIALS.. SKILL

Build around a Benefire Form and **Save Labor** because all the time-consuming "brick-by-brick" details are an integral part of the Benefire.

Build around a Benefire Form and **Save Materials** because you use less brick and mortar and there's no damper to buy—it's a built-in feature of Benefire.

Build around a Benefire Form and **Save the Cost of Highly Specialized Skill** because there's no intricate planning necessary. Just straight fast work not requiring specialized experience.

Follow the simple instructions and your mason's work is **GUARANTEED** every time.

IT'S TRUE—no matter how simple or elaborate your fireplace, you can build it **better at less cost** with a Benefire Fireplace Form.



Look what you save...

1. Time and labor
2. Specialized skill unnecessary
3. No damper to buy
4. Brick and mortar



Look what you get...

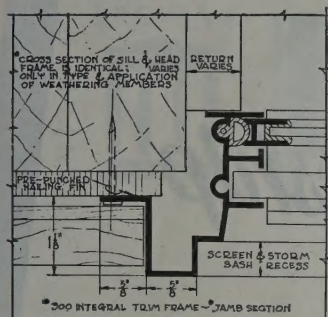
1. No smoke, guaranteed
2. Tempers cold floor drafts
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or write Dept. B for free catalog.

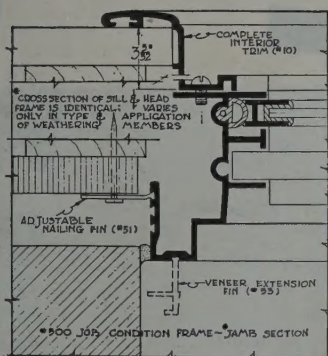
BENNETT-IRELAND INC.

Chartered in 1906
NORWICH, NEW YORK

NEW SLIDER SOLVES ALL INSTALLATION PROBLEMS



1 1/8" deep by 1 1/2" wide exterior trim (casing) and 5/8" wide pre-punched full perimeter nailing fin is integral part of window frame. Installed over sheathing in framed rough opening in less than five minutes. Almost impossible to rack. Easily milled. May be used for masonry block construction; however, Job Condition Frame recommended.



100% versatile. Exterior trim (casing) is integral with window frame; contains continuous perimeter dovetail to accept simple installation fins (#51, #52 or #53) for wood frame or masonry construction. Simple vertical mulls. Jamb pre-drilled for positive screwing to rabbeted wood bucks. #51 Nailing Fin (pre-punched) provides six adjustments; one of three side dovetails chosen; offset in fin leg reversible before sliding fin into dovetail. #52 Masonry Block Fin (not shown) centers window frame in block slots. #53 Veneer Extension Fin provides wide brick mould when greater than 1" finger space required. #10 Interior Complete Trim used in wood frame construction in conjunction with #51 Nailing Fin; a complete package fitting any through-wall thickness from 4 3/8" to 5 3/8" regardless of thickness of exterior sheathing and thickness of interior wall materials. Infinite adjustment. #20 Interior Cove Trim (not shown) used when frame is installed in block construction with #52 Masonry Block Fin and interior masonry left exposed; #20 Trim also applicable for other types of wall construction.

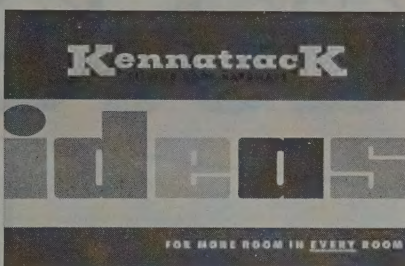
PER-FIT DOUBLE HUNG • BEST-VENT DOUBLE HUNG •
PER-FIT SLIDER • PER-FIT GLASS BLOCK VENTILATOR



PER-FIT PRODUCTS CORP.

1207 EAST 52nd STREET • INDIANAPOLIS, INDIANA

TECHNICAL PUBLICATIONS *cont'd.*



SLIDING DOORS. Kennatrack Ideas. Kennatrack Corp., Dept. HH, Elkhart, Ind. 12 pp. 5 1/2" x 8 1/2"

How to use sliding doors anywhere that an opening must be closed. Pictures and simplified diagrams are of horizontal sliding installations in closets, storage space, between rooms or in kitchen cabinets.

BATHROOMS. Weisway Cabinet Showers. Henry Weis Mfg. Co., Dept. HH, Elkhart, Ind. 24 pp. 8 1/2" x 11"

Cabinet showers, receptacles and accessories, complete with specification data and details. In color, with suggestions for bath and shower arrangements.

CIRCUIT BREAKERS. Four Ways to Improve a Modern Masterpiece. Federal Electric Products Co., Dept. HH, 50 Paris St., Newark 5, N.J. 8 pp. 8 1/2" x 11"

Technical data on circuit-breaker design.

KITCHEN PLANNING. Kitchens that Sing. Kitchen Maid Corp., Dept. HH, Andrews, Ind. 12 pp. 8 1/2" x 11". 15¢

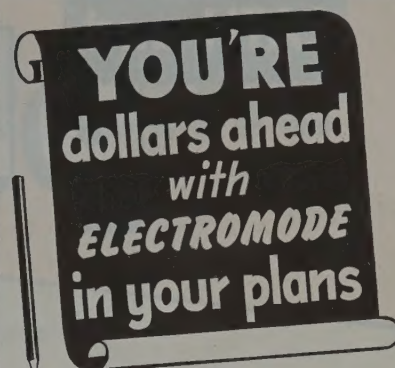
A collection of modern kitchens, photographed in color, illustrating modern thinking in kitchen design. A separate sheet gives details and specifications of all standard units.

TRUSSES. How to Build Wood Frame Trussed Rafters. Timber Engineering Co., Dept. HH, National Lumber Mfrs. Assn., 1319 18th St. N.W., Washington 6, D.C.

For the builder or lumber dealer who wants to build his own roof trusses, this step-by-step booklet is invaluable. Materials, equipment and layout are all described graphically, as well as the complete process for cutting, fitting and assembling a 24'-span truss.

PANELING. Marlite Prefinished Panels, Planks and Blocks. Marsh Wall Products, Inc., Dept. HH, Dover, Ohio. 8 pp. 8 1/2" x 11"

A kaleidoscopic exhibit of the many colors and wood patterns available in this company's plastic-faced hardboard products. Specifications and installation details are given, and pictures of the full line of metal molding trim.



ELECTROMODE ALL-ELECTRIC HEATERS

You put your homes on the Top Preference List when you include Electromode Automatic Electric Heaters in your plans. No basement, vents or ductwork needed. Saves you time and money.

Buyers are quick to decide on homes with Electromode Heaters, because Electromodes have the features they want:

- CLEAN, HEALTHFUL, FAN-CIRCULATED HEAT
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- SMART, MODERN DESIGNS
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Only ELECTROMODE

has the sealed-in CAST-ALUMINUM HEATING ELEMENT. No danger of fire, shock or burn. Guaranteed for 5 years. Built-in safety switch prevents overheating.

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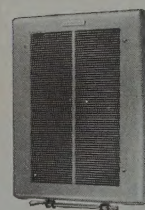


HEAT for BIG ROOMS

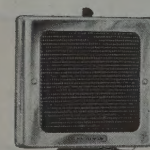
This Electromode wall model distributes heat by down-flow principle, assuring warm floors. Handsome silver grey hammer-tone finish blends with other furnishings.

Model WA

Capacities: 1500 to 4000 watts



For Modern BATHROOMS



Enhance the beauty of the bathroom or any small room with this wall model Electromode. Choice of gleaming chrome or white enamel finish to blend with other fixtures.

Model WJA

Capacity: 1320 watts

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BY *E. A. Taylor*
June 1, 1974 DATE

